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1992

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DEPARTMENT OF NATURAL RESOURCES
Frances S. Buchholzer, Director
DIVISION OF GEOLOGICAL SURVEY
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1992 REPORT ON OHIO MINERAL INDUSTRIES

WITH

DIRECTORIES OF REPORTING
COAL AND INDUSTRIAL MINERAL OPERATORS



DIVISION OF GEOLOGICAL SURVEY
4383 FOUNTAIN SQUARE DRIVE
COLUMBUS, OHIO 43224-1362
(614) 265-6576
(614) 447-1918 (FAX)

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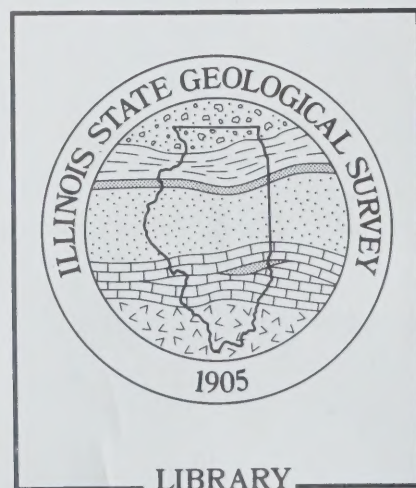
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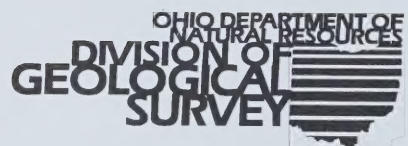
DIRECTORIES OF REPORTING
COAL AND INDUSTRIAL MINERAL OPERATORS

compiled by

Sherry L. Weisgarber



Columbus
1993



Typesetting and layout: Lisa Van Doren

Cover illustration: Portion of the Bethesda, Ohio, 7.5-minute quadrangle showing coal resources categorized by thickness, overburden, and data reliability ("bullseyes"). This computer-generated map is from a Coal Availability study of the original coal resources of the Pittsburgh (No. 8) coal in the Bethesda quadrangle. Original resources are defined as the coal greater than 14 inches thick that was present prior to mining. See article on Coal Availability studies in Ohio starting on page 1.

PREFACE

Ohio has a very important role to play in the Nation's energy resource future. Political instability in oil-rich Persian Gulf nations is likely to continue, and our dependency on oil and gas imports from that part of the world continues to increase. Serious efforts to become energy independent and to develop our domestic energy resources are urgently needed. Oil and gas for transportation and coal for generation of electricity are abundant in Ohio, but these resources are becoming more and more difficult to extract from the Earth because they occur in more complex geological settings, and because of needed environmental controls. In the interest of long-term energy security for Ohioans, we must rally behind vigorous and secure domestic oil and gas and coal industries.

The Division of Geological Survey participates in development of the state's hydrocarbon resources. It has the responsibility of unfolding and documenting the geologic framework of the State that is below the surface and accessible only through drilling or geophysical technologies. It maintains the only statewide center for subsurface-geology records. Files open to the public include drilling records (approximately 250,000), geophysical logs (approximately 65,000 suites), and township maps (approximately 1,100) showing the up-to-date location and status of all known drill-hole sites. In addition to these records, the Survey holds thousands of other records from various sources and maintains a subsurface-sample library that has over 200,000 feet of core and cuttings from approximately 4,500 oil and gas wells. The Ohio Geological Survey is the only agency that can accomplish the statewide record-keeping and the necessary statewide subsurface research needed to develop our oil and gas resources.

If we want to become truly energy independent, we must also conduct investigations that identify the location, quantity, and quality of our vast coal resources. Furthermore, we must give equal emphasis to clean-coal technologies that reduce emissions of sulfur dioxide and nitrogen oxide. The Ohio Division of Geological Survey plays a pivotal role in the present and future development of Ohio coal. It has the responsibility of building and maintaining the Ohio portion of the U.S. Geological Survey's National Coal Resources Data System (NCRDS), which provides the capability of quickly calculating coal resources. NCRDS is, in fact, a geographic information system (GIS) that can generate maps showing coal thicknesses, overburden thicknesses, interburden characteristics, and trends for sulfur, heat value, ash content, trace elements, roof quality, and many other related properties.

The U.S. Geological Survey's Coal Availability Program—the subject of Dr. Allan Axon's article in this year's report—provides far more realistic analyses of available coal resources than traditional methods. This USGS program in which the Ohio Survey is participating assesses truly available coal resources, taking into consideration all of the demographic, geographic, economic, and environmental constraints to mining.

Success in utilizing Ohio coal depends on the development of clean-coal technologies. These technologies will present new opportunities for the limestone and dolomite producers of Ohio because their resources can now be considered as potential chemical reagents in addition to their use as aggregate. Because carbonate rocks will be in demand for use in capturing the sulfur dioxide that is emitted during coal combustion, the Division of Geological Survey is investigating the location, quantity, and quality of the State's abundant limestone and dolomite resources. The Survey is also a member of the Ohio Valley Mineral Consortium, a partnership of the six state geological surveys surrounding the Ohio River, working together to assist limestone and dolomite producers expand into the chemical reagent business.

Your State Geological Survey has made a big commitment to the geology of our energy and mineral resources, and expects to continue that commitment. Our programs of geologic mapping and resource investigation are sharply focused on the nonexclusive goals of energy independence and environmental improvement. The geological challenge is great, but our staff are anxious to meet the challenge.

Thomas M. Berg
State Geologist and Chief



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FOREWORD

The two articles in this year's report are "Coal availability: estimating coal resources available for development," authored by Dr. Allan G. Axon, Survey Geologist, and "Ohio's legacy in stone," authored by Dr. Joseph T. Hannibal, Curator of Invertebrate Paleontology, Cleveland Museum of Natural History. Dr. Axon's article discusses the technology used to determine available coal resources. Dr. Hannibal's article is an account of how native building stone has been used in the state.

One major change has occurred with the 1992 report. The articles, mineral commodity summaries, graphs, and maps have been produced on the Division's new desktop publishing system. We expect that the new system will enhance the timeliness of the report.

As usual, all changes and additions are made to increase the clarity and usefulness of the report to the public. Articles and photos are included to make the report more interesting to our readers. Any comments on how this report can better serve those interested in mineral resources in Ohio are always welcome.

In the Foreword of the 1991 Report on Ohio mineral industries we stated that the article, "History of the coal mining industry in Ohio," authored by Douglas L. Crowell, Survey Geologist, was to be published as a Division of Geological Survey Information Circular. Because additional text and photographs are being included in the article, publication has been delayed. It is hoped this publication will be available by the end of 1993. With the additional information, we believe even more strongly that this article will be of interest to the coal operators in Ohio; therefore, when it is published, it will be distributed to all coal operators that receive this report.

Sherry L. Weisgarber
Geologist and
Mineral Statistician

Errata for
1991 report
now available
upon request

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COAL AVAILABILITY: ESTIMATING COAL RESOURCES AVAILABLE FOR DEVELOPMENT

by
Allan G. Axon, Geologist
Ohio Department of Natural Resources, Division of Geological Survey

INTRODUCTION

Cataloging, characterizing, and evaluating Ohio's coal resources have been a significant component of the Ohio Division of Geological Survey's mission since early work by Newberry and Orton during the 1870's and 1880's. Updating information about coal resources of the state has continued into the 1990's. The Division currently estimates that the total economic resources of coal in Ohio are 23.9 billion short tons (Carlton, 1991a). Of these resources, 64 percent fall in the high-sulfur (>2.50 lbs. sulfur/million Btu) range. As the national economy and federal legislation affect the marketability of coal mined in Ohio, the importance of continuing to expand our understanding of this natural resource increases.

Toward this end, the Division has been cooperating, since 1989, with the Coal Branch of the U.S. Geological Survey (USGS) within the framework of the National Coal Resources Data System (NCRDS) (Carlton, 1991b). NCRDS is a program in which approximately 20 coal-mining states are working toward building computer databases of coal resource information such as coal thickness, coal elevation, coal quality, and coal outcrop areas for each state. The USGS will provide both funding and coordination to link these statewide databases into a national database that can serve as a tool in the management of our energy resources.

As this information is compiled, it can be used in new evaluations of coal resources. Coal is expected to produce as much as 37 percent of the domestic power supply by the year 2000 (Energy Information Administration, 1988). The Department of Energy's predictions that, at this rate of consumption, the supply of coal in the U.S. will last about 200 years (EIA, 1988) are being tested by newer coal-resource estimates (Eggleston and others, 1990). Some of these recent resource estimates suggest that earlier studies either overestimated the tonnage of coal resources or failed to accurately provide for the characterization of coal that is not actually available for production.

APPLYING NCRDS: COAL AVAILABILITY

The Coal Branch of the USGS, in cooperation with state geological surveys, has been building coal resource databases since the 1970's. Applications of these data have culminated in a two-part system. Relational database software is used to manage the stratigraphic and location data from each state. A public-domain geographic information system (GIS), called GRASS (Geographic Resource Analysis Support System), is used to evaluate the coal resources.

GRASS software was originally developed by the U.S. Army to assist in managing the resources of large military bases. Many federal agencies, including the USGS, are now involved in further development and application of this GIS. One advantage of using GRASS is that, unlike commercial GIS's, the software is available at no cost or just the cost of the transfer medium (compact disk or tape). As part of the Coal Availability agreements, the USGS has loaned to the Division a powerful computer workstation on which GRASS is used to complete the evaluation of available coal resources.

THE COAL AVAILABILITY METHODOLOGY

The goal of the Coal Availability program is to estimate the amount of coal resources within a region that are actually available for production (Eggleston and others, 1990). Coal Availability studies have been completed in the central Appalachian Basin by Kentucky, West Virginia, and Virginia. Since 1991, work has progressed to the northern Appalachian Basin in Ohio and Pennsylvania and to the Illinois Basin in Kentucky and Indiana. In the next few years, the program will expand to include the coal basins of the western U.S. In order to ensure that the Coal Availability study area was small enough for work to be completed in a reasonable amount of time (1 year), yet large enough to be representative of a larger region, the studies are done at the scale of one 7.5-minute quadrangle.

Coal can be restricted from production by land-use or technological considerations, and the assessment of both kinds of restrictions is crucial to the development of estimates of available coal resources. First, possible land-use restrictions that would affect surface mining within the study area are determined, then the areas are digitized and transferred into the GIS. In these areas, coal cannot be mined because of such features as roads, towns, major streams, etc. (table A). The availability of land for mining purposes differs from state to state, so the USGS encourages the use of local practices in determining the areas that are to be labelled as restricted to mining.

For each coal seam evaluated, two types of data are necessary. First, stratigraphic data, consisting of geographically located measurements of coal thickness, quality, and elevation, are compiled in the computer database. From these data, isopach, structure, and overburden maps are created. Also created are maps of areas that would be restricted from underground mining because of geologic and technological reasons, such as where coal is too thin to mine underground (table A).

GRASS, using logic formulas developed by the USGS and adapted by the Ohio Survey, then calculates the tonnage of coal in several resource categories: original resources, mined-out coal, remaining resources, coal restricted by land use or technology, and available resources (see schematic on p. 3). The coal resources in each of these categories are characterized using the Coal Resource Classification System of the USGS (Wood and others, 1983).

1. Only coal in beds greater than or equal to 14 inches thick is included as a resource. Coal in a bed less than 14 inches is excluded.

2. Coal resource tonnages are reported in thickness increments of either 14 to 28 inches or greater than 28 inches.

3. Three overburden categories are reported: 0 to 200 feet, 200 to 1,000 feet, and greater than 1,000 feet. The USGS generally uses 200 feet as the limit of surface mining, but local practice is the determining factor of what depth is used.

4. Coal resource estimates are reported in the following categories of reliability: measured (including coal 0 to 0.25 mile from point of thickness measurement), indicated (0.25 to 0.75 mile), inferred (0.75 to 3 miles), and hypothetical (greater

Restriction	Buffer (ft)	Restriction type		Type of mining	
		Land use	Technological	Surface	Deep
Airports	100	X		X	
Cemeteries	100	X		X	
Roads	100	X		X	
Railroads	100	X		X	
Pipelines	100	X		X	
Towns		X		X	
Streams	100	X		X	
State parks		X		X	
Oil & gas wells	50	X	X	X	X
Wetlands		X		X	
Mine barrier	50		X		X
Coal too thin			X		X
Coal too deep			X		X
Interburden < 25 ft			X		X
Mining < 25 ft			X		X

TABLE A.—Restrictions applied to Coal Availability studies in Ohio. Not all restriction categories affect all seams.

than 3 miles).

Once tonnages have been calculated for all the seams in a quadrangle, these numbers can be examined to determine geologic and manmade controls on the availability of coal resources.

COAL AVAILABILITY IN OHIO

In 1991, the Division of Geological Survey entered into the first of a series of 1-year cooperative agreements with the USGS in order to study the availability of coal resources for mining using present technologies. At least five Coal Availability studies are planned for Ohio.

Selection of study areas in Ohio

The selection of the quadrangles to be analyzed using the Coal Availability methodology is an important first step, because only five quadrangles may be completed using these methods. The quadrangles must be representative of larger regions, so that coal resource information obtained in these studies can be extrapolated. Ultimately, the characterization of coal resources will be representative of Ohio and the rest of the northern Appalachian Basin. Several criteria were examined when selecting quadrangles for study: production history, stratigraphy, quality of geologic maps, and quantity and quality of coal resource data. For example, the Bethesda, Ohio, 7.5-minute quadrangle (1:24,000-scale) was selected as

the first study area for several reasons. This quadrangle is located within Belmont County, an area where large amounts of coal have been produced. A suitable amount of coal resource data was available for this quadrangle and was easily accessible in the Division's Regional Geology files. A recent 1:24,000-scale geologic map (Slucher, 1991) also was available, so that coal crop lines and surface-mined areas could be digitized easily. By the end of 1993, the Ohio Survey will have completed the analyses of three 7.5-minute quadrangles: Bethesda, East Palestine (Columbiana County), and Strasburg (Tuscarawas County). Analysis of a quadrangle in Vinton County is planned for 1994.

Sources of data for studies in Ohio

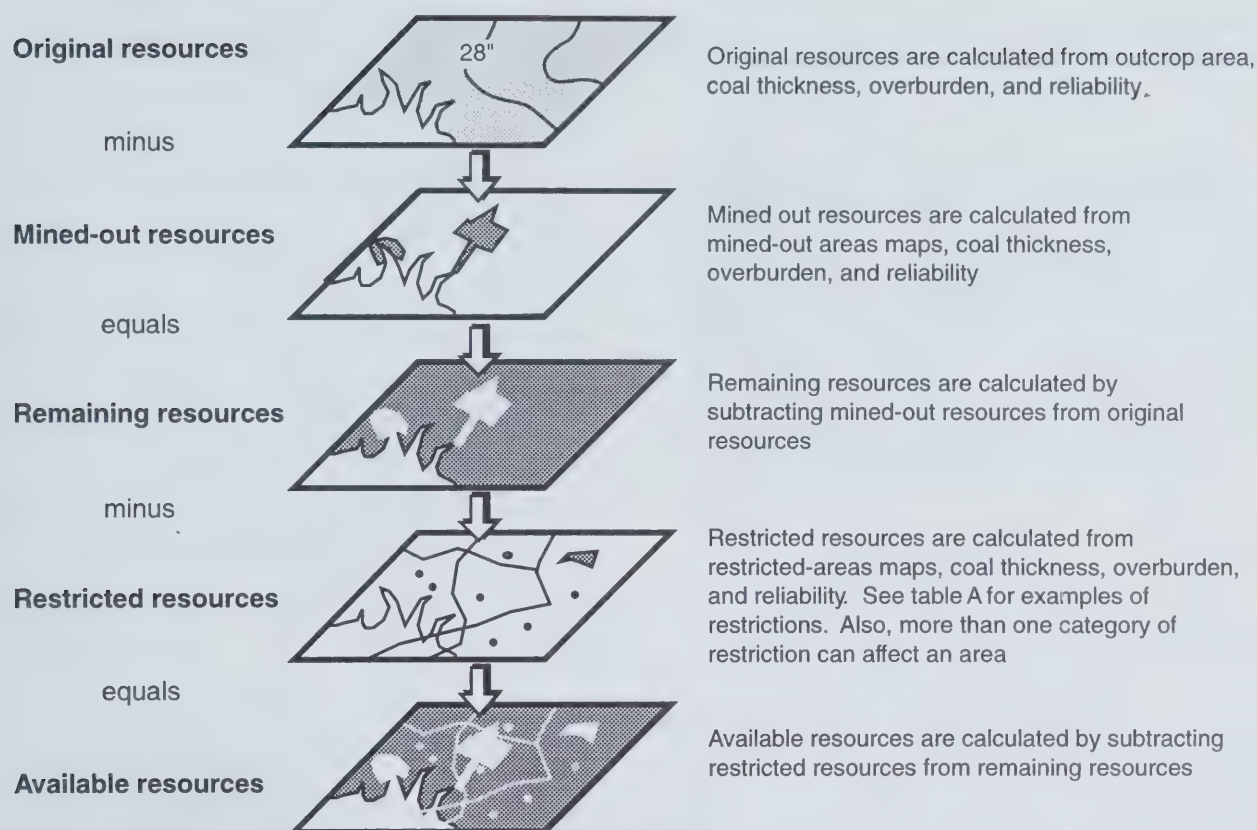
As described previously, many types of information are needed in order to evaluate the availability of coal resources. Stratigraphic and coal-quality data are available in files of the Regional Geology and the Mineral Resources and Geochemistry Sections of the Division. Mining company data also have generously been made available to the Ohio Survey for some areas. Coal crop lines were obtained from open-file geologic maps located in the Survey's Regional Geology Section, although these maps are not available for all areas of Ohio. Surface-mined areas were determined from Division file maps and aerial photographs, ODNR, Division of Reclamation surface-mine permits, and some coal company maps. Underground-mined areas were determined from the Abandoned Underground Mine Map Series in the Division's Regional Geology Section. Land-use restrictions were determined from USGS 7.5-minute quadrangles and from other maps from other ODNR divisions. Digital elevation models (DEM's) of many 7.5-minute quadrangles are available through the USGS.

COAL AVAILABILITY RESULTS: THE BETHESDA QUADRANGLE

Results from the Bethesda study area illustrate the information generated by Coal Availability studies. Five seams were analyzed in the Bethesda study: the Pittsburgh (No. 8), the Meigs Creek (No. 9), the Uniontown (No. 10), the Waynesburg (No. 11), and the Washington (No. 12). Five categories of resources are estimated by the Coal Availability methodology (table B). Original resources are estimates of the total amount of coal greater than 14 inches thick prior to mining. Mined-out resources are estimates of the amount of coal that has been mined and lost in mining. Coal lost in mining includes coal left behind in mine pillars and is calculated by the GIS and not from production records. Remaining resources are an estimate of the coal greater than 14 inches thick that remains after mining. Restricted resources are an estimate of the coal greater than 14 inches thick that is unavailable for mining due to land-use or technological reasons. Available resources are an estimate of the coal greater than 14 inches thick that is available for mining (see schematic).

In all, 495,432,000 short tons of coal are estimated to be available for mining in the Bethesda quadrangle (table B). The Pittsburgh and Meigs Creek coal beds contain the bulk of the available resources within the quadrangle. Most of the coal within the quadrangle is surface mineable, that is, within at least 200 feet of the surface (see graph). Of the five seams analyzed in this study, only the Pittsburgh seam has more available resources which would require underground mining than are available by surface mining.

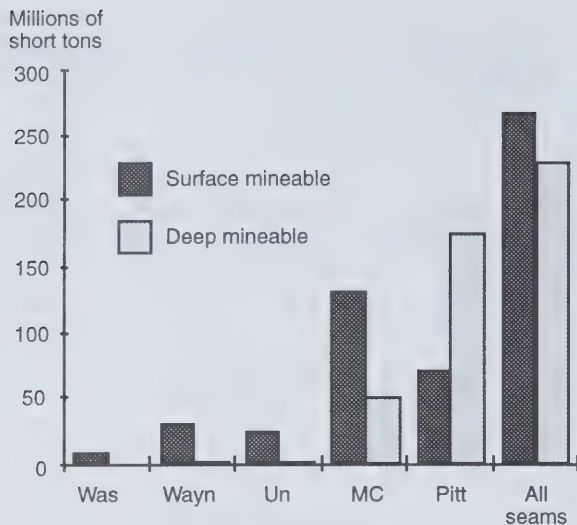
The percentage of remaining resources in each seam that is actually available for development ranges from 77 percent for the Waynesburg to 96 percent for the Pittsburgh. For all



Schematic of the Coal Availability "formula" and the steps taken by the GIS to reach an estimation of the resources available to mining.

Bed	Resources (thousand short tons)				
	Original	Mined out	Remaining	Restricted	Available
Washington (No. 12)	9,612	92	9,519	828	8,686 (91%)
Waynesburg (No. 11)	54,965	12,098	42,864	9,855	33,007 (77%)
Uniontown (No. 10)	34,129	573	33,555	7,011	26,542 (79%)
Meigs Creek (No. 9)	241,743	37,103	204,913	24,414	180,494 (88%)
Pittsburgh (No. 8)	302,010	44,842	257,261	10,554	246,703 (96%)
All seams	642,459	94,708	548,112	52,662	495,432 (90%)

TABLE B.—Characterization of the coal resources of the Bethesda, Ohio, 7.5-minute quadrangle. Available resources are also expressed as a percentage of the remaining resources (in parentheses).



Coal bed abbreviations:

Was = Washington (No. 12)

Wayn = Waynesburg (No. 11)

Un = Uniontown (No. 10)

MC = Meigs Creek (No. 9)

Pitt = Pittsburgh (No. 8)

Estimates of available coal resources in the Bethesda quadrangle that are surface or deep mineable.

the remaining resources within the quadrangle, about 90 percent are available. Comparison with Coal Availability studies completed in other states (Weisenfluh and others, 1992) suggests that future Coal Availability studies in Ohio may not return values as high. In seven studies completed by the Kentucky Geological Survey, the percentage of coal resources available for mining per quadrangle ranges from 45 to 73 percent. Preliminary data from the East Palestine, Ohio, study area suggest a smaller percentage of remaining resources will be available for mining within this quadrangle. As more studies are completed in Ohio, the Division will explore extrapolating the data from 7.5-minute quadrangles to larger regions, so that the geologic factors controlling the availability of coal resources can be predicted for the entire coal-bearing region of the state.

Besides the coal-resource tonnage information generated by Coal Availability studies, indirect benefits to Ohio are also possible from by-products of these studies. The Division is building its first computerized databases for coal resource

information and is gaining valuable experience in compiling information stored in Division files into formats which will eventually be incorporated into larger Divisionwide and Departmentwide databases. Open-file maps that can be used by both state agencies and industry also will be produced. These maps will probably include coal thickness, elevation, overburden, outcrop, and mined-out areas and will cover not only the quadrangle studied, but also the quadrangles surrounding the study area.

CONCLUSION

As the coal industry in Ohio continues to be affected by federal legislation and the growing market for western low-sulfur coals, more precise characterization of the coal resources of Ohio becomes important. Long-term energy solutions for Ohio and the nation may have to include the modification of our energy-producing technology in order to utilize high-sulfur coals, which are still plentiful in the state. Accurate information about the quantity and quality of coal resources will be necessary for decision-making by state government and industry planners. The Coal Availability program will provide information that can be used to characterize the state's resources in the short term, and, in the long term, serve as a start to building databases and implementing information technology which will allow more reliable estimates of the state's natural resources.

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OHIO'S LEGACY IN STONE

by Joseph T. Hannibal
Cleveland Museum of Natural History

Ohio's most beautiful structures are made of stone. Stone courthouses and houses of worship grace most of Ohio's cities and towns, from some of the smallest to the largest. Elegant stone bridges enhance the appearance of many cities. And stone sidewalks and curbstones are still common in some places. Many of these classic stone structures are made of native stone, quarried from Ohio's sedimentary rock sequences.

Ohio is blessed with abundant supplies of sandstone, conglomerate, and limestone. Many deposits of these types of stone have historically been quarried in Ohio for use as dimension stone. Because of transportation costs, local stone was (and still is) highly desirable. A great number of dimension-stone quarries were opened during the 19th and early 20th centuries in Ohio. Some small quarries supplied stone for only a few structures; others grew to large sizes as demand for stone increased.

Stone was transported early via natural waterways. For instance, Buena Vista sandstone from the Buena Vista area, near the Scioto-Adams County line, was rafted to Cincinnati on the Ohio River as early as 1814. But the construction of a system of canals, beginning in the 1820's, followed closely by the building of railroads, facilitated large-scale transportation of stone. This relative ease of transport resulted in the spread of the use of various types of stone. Stone from the Dayton area, for example, was brought to Cincinnati soon after a canal link was established between the two cities in 1829. The building of the canals also stimulated quarrying, as native dimension stone was used for many locks and other features. Buena Vista sandstone and Dayton limestone were used for canal locks in southwestern Ohio; Berea Sandstone was used for canal locks in much of northeastern Ohio.

Various Ohio Geological Survey reports document Ohio's dimension-stone industry since the 1830's. The most comprehensive of these reports is J. A. Bownocker's 1915 bulletin on building stone. His detailed report is important as a guide to the nature of various dimension-stone deposits throughout the state. The bulletin is also useful as a historical document, for many of the quarries that Bownocker reported on are no longer worked. Bownocker also notes prominent structures made of various Ohio stone.

In recent years, quarrying of dimension stone has been restricted to only a few regions of Ohio. Berea Sandstone is quarried in Lorain and Erie Counties; Briar Hill sandstone (known to geologists as the Massillon sandstone) is quarried

in Knox, Coshocton, and Holmes Counties (Briar Hill Stone Company staff, 1991); and Buena Vista sandstone is quarried in Scioto County.

Examples of the use of many types of classic Ohio building stones, as well as imported domestic and foreign stone, are discussed in several recent guidebooks of the Ohio Division of Geological Survey. Guides to the building stones of downtown Cleveland (Hannibal and Schmidt, 1992) and Cincinnati (Hannibal and Davis, 1992) have been published. A guide to the building stones of downtown Columbus (Melvin and McKenzie, 1992) will be published soon. Cemetery monuments made of local as well as imported stone are discussed in a geological guide to Dayton's Woodland Cemetery and Arboretum (Sandy, 1992).

The Ohio State House, completed in 1861, is one of the structures featured in the Columbus guidebook. The State



Nineteenth-century view of the old Superior Viaduct in Cleveland. A massive amount of Berea Sandstone was used for this structure, built in 1875-78. Portions of the bridge can still be seen along the Cuyahoga River in Cleveland's Flats area. Illustration from a catalog of the Cleveland Stone Company, circa 1890.

House is probably the most famous building in the state and is the destination of many a school field trip. The exterior is constructed of Columbus Limestone, replete with fossils. Various Ohio and imported stone is used in the interior.

Because of the importance of the Capitol complex, special care was taken during recent renovation and expansion. When an atrium was added to the Capitol complex in 1992, a special effort was made to obtain stone like that used for the original buildings. Because Columbus Limestone was no longer quarried for dimension stone in the Columbus area, stone for this project was quarried from a nearby American Aggregates Corp. aggregate quarry (Melvin and McKenzie, 1992). Columbus Limestone is variously used in old Columbus neighborhoods. Hitching posts made of Columbus Limestone, for example, add to the charm of Columbus' German Village.

Also in Columbus, and featured in the Columbus guide, is Ohio State University's Orton Hall, a showcase of Ohio dimension stone. A wide variety of Ohio stone is used for the exterior and interior of this fine structure (Melvin and



St. Peter in Chains Cathedral (foreground) and Cincinnati City Hall (background). The exterior of St. Peter in Chains Cathedral is made primarily of Dayton limestone. The large pillars at the main entrance are made of Buena Vista sandstone. The cathedral was consecrated in 1845. The light-colored stone used for City Hall is Berea Sandstone, quarried in the Amherst, Ohio, area. The darker stone is a red sandstone quarried at Houghton, Wisconsin. City Hall was completed in 1893.

McKenzie, 1992; Gnidovec, 1993). The types of stone used for the exterior are laid down in the same relative order as they are found in nature. Rocks of Silurian age, quarried from the Brassfield and other formations, form the base, and are overlain by subsequently younger rock layers. Berea Sandstone is used for the first two floors.

Berea Sandstone has long been quarried in northeastern Ohio, as well as some other localities where it crops out in the state. This stone is used for numerous churches and public buildings in the Cleveland area, including Cleveland's famous Old Stone Church. Berea Sandstone also has been used for curbstones, lintels, and base courses of stone around wooden houses. Structures made with Berea Sandstone also grace cities and towns in many other areas of the state. Portions of Cincinnati's City Hall, for example, are made with Berea Sandstone quarried in Lorain County.

Cincinnati can boast of several other fine structures made with Ohio stone. St. Peter in Chains Cathedral, consecrated in 1845, is made primarily of Dayton limestone. Its exterior pillars are fashioned from Buena Vista sandstone. The bridge

abutments and elephantine piers of Cincinnati's Roebling Suspension Bridge, completed in 1867, are made with great amounts of Buena Vista sandstone, quarried in the Buena Vista, Ohio, area.

Dayton's Woodland Cemetery, featured in the guidebook by Sandy, is one of several of Ohio's elegant, garden-style cemeteries. These large cemeteries were begun in the 19th century. Other examples include Cleveland's Lake View Cemetery, Columbus' Green Lawn Cemetery, and Cincinnati's Spring Grove Cemetery. These cemeteries contain a variety of stone, used for mausoleums, monuments, and headstones. Many of the large structures in these cemeteries are made of native Ohio stone. The chapel, office, and Waldo Street gatehouse of Woodland Cemetery are made of Dayton limestone (Sandy, 1992). The structures at the main entrance to Spring Grove Cemetery in Cincinnati are made of Buena Vista sandstone and other Ohio stone. Lake View Cemetery's Garfield Monument, a monument to and the resting place of the remains of President James Garfield (1831-1881), is constructed of Berea Sandstone.

A few of the older monuments in these cemeteries are made entirely of Ohio stone. Some monuments in Green Lawn Cemetery, for instance, are made of Columbus Limestone; some in Spring Grove Cemetery and Woodland Cemetery are made of Buena Vista sandstone. From very early times, however, imported stone, especially light-colored marble, was used for cemetery monuments. The bases of monuments, however, were commonly made of Ohio stone. Berea Sandstone was used in northern Ohio, Columbus Limestone in Columbus, and Dayton limestone in Dayton. According to Edward Kotecki Jr., of Kotecki Monuments in Cleveland, his grandfather would drive a wagon to the nearby town of Berea to pick up sandstone for use as bases for monuments of imported marble.

Local stone was used for bases of monuments in part because of its lesser expense. Ironically, however, sandstone bases have generally held up better than the marble monuments which lie upon them. A number of marble monuments with bases of Berea Sandstone can be seen in Lake View Cemetery. The outermost layers of marble of these monuments have been lost owing to acid rain and related factors, but the bases of Berea Sandstone retain the markings made by stoneworkers just prior to their installation. The fine-grained marble used for early monuments seems especially susceptible to acid rain. In Green Lawn Cemetery, many Civil War veterans' gravestones made of fine-grained marble are being replaced with gravestones of a coarser grained marble. Because of problems of degradation, however, some cemeteries no longer allow monuments made of marble.

In recent years, the use of sandstone and other Ohio dimension stone has declined. This decline is due in part to architectural trends and in part to competition from other materials, including other types of stone and concrete. Indiana limestone, a porous, coarse-grained limestone, has been a chief competitor. Indiana limestone is a fine building stone that holds up well in urban environments (although it is affected by acid rain) and is interesting for its fossil content (it consists almost entirely of small fossil fragments). To the uninitiated, however, Indiana limestone looks much like concrete. Ohio's sandstones, with their varied colors and bedding structures, have more character. They are also better than Indiana limestone for some uses. Flagstones of Berea Sandstone, for instance, are less slippery than those made of Indiana limestone.

Larger, and many smaller, Ohio cities and towns can boast of beautiful granite-clad buildings and fine structures built of Indiana limestone. A diversity of stone types makes a city more interesting. Indeed, modern cities are great places to



Roebling Suspension Bridge, Cincinnati. This photo, taken in 1868, shows the bridge shortly after completion. Most of the stone used for the exterior of the bridge abutments and the huge anchor piers is Buena Vista sandstone. Photograph courtesy of The Cincinnati Historical Society.

observe beautiful granites and other stone types from various parts of North America and other continents. However, it is a great loss when the use of stones from other states and countries displaces the use of good native stone. The integration of Ohio dimension stone into modern architectural designs should be encouraged.

Great parts of Ohio's stone heritage have been lost. Many classic stone buildings have been demolished, especially in major cities. The nature of the loss can be envisioned by leafing through illustrated historical works on our cities. Many stone buildings in Cleveland have been demolished in this century. More of Cincinnati's stone heritage has been preserved, but much also has been lost. And in all of our big (and many small) cities, stone structures are being razed today. There is some sign of hope for our classic buildings, however. When one of Case Western Reserve University's oldest stone structures, Adelbert Main, was badly damaged in a fire in 1991, university officials decided to rebuild. New Ohio stone was added where needed, cut to match the original.

Stone walkways are also being lost throughout the state. In recent years, stone sidewalks were removed wholesale and replaced by concrete in many Cleveland neighborhoods, including historic districts. Stone flagging was removed, for example, around St. John's Episcopal Church on Cleveland's near West Side. This structure is the oldest stone church in Cleveland, the cornerstone having been laid in 1836. Although the cost of stone is more than that of concrete, the

replacement with concrete certainly detracts from the historic nature of historic districts.

During recent renovation in downtown Columbus, granites from Texas and South Dakota were used as flagging around the State House. Flagging is certainly not among the best uses of granite. The beautiful colors of granite are muted when it is used as flagging because the stone must be roughly finished to prevent slipping. Ohio sandstone flagging would have been more appropriate in this case.

As for the old quarries, some are incorporated into parks and other public properties. Several old Berea Sandstone quarries are now located in the Cleveland Metroparks. An old Berea Sandstone quarry is one of the main attractions of Deep Lock Quarry Park, located in the Cuyahoga Valley National Recreation Area. At the southern end of the state, old quarries of the Buena Vista sandstone are located in Shawnee State Forest. Many other old quarries are now difficult to trace and take some sleuthing to relocate. There have been few recent published attempts to relocate old Ohio quarries. However, Sandy (1992) compiled up-to-date information on old quarries of the Dayton limestone in the Dayton area.

Ohio's dimension stone is underused. This underuse may be tied to a lack of appreciation for building stone. Thus, efforts to stimulate an appreciation for stone used in our classic Ohio buildings and other structures and monuments are in order. The references listed below may be helpful in these efforts.



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One of the older monuments in Green Lawn Cemetery in Columbus. Many such older cemetery monuments, made of imported marble, were placed on bases of Ohio stone. This marble monument is on a base of native Ohio limestone. Ohio sandstone was used in many other parts of the state for monument bases.



A variety of chisels used by the stone mason. Photo courtesy of The David Hummel Building Co., a Division of Hummel Industries, Inc.

1992 OHIO MINING ACTIVITIES IN BRIEF

Reports were filed in 1992 for 278 coal-mining operations, which includes 13 mines with their own coal-washing facility. Coal production was reported from 191 of these 278 operations. Reports also were filed for 59 separate coal-washing plants and associated facilities. Of 665 industrial-mineral-mining operations known to be operating in 1992, 533 operations were active. There were a total of 41 mines reporting production of multiple mineral commodities. Of this total, 17 mines reported production of multiple industrial minerals only; 19 mines reported production of multiple industrial minerals and coal; and 5 mines reported production of coal and one industrial mineral. There were 748 new wells completed for oil and gas in 1992, of which 609 were productive and 139 were dry.

The total value¹ of coal was \$775,986,936 in 1992; the value

of oil and gas was \$511,137,092; and the total value¹ of all nonfuel industrial minerals was \$438,880,778 in 1992.

TABLE 1. — 1992 Mineral sales and production in Ohio

Commodity	Sales ¹	Production ²
Coal	28,904,245 tons	29,403,063 tons
Limestone and dolomite	53,141,472 tons	54,578,997 tons
Sand and gravel	44,745,704 tons	45,916,298 tons
Salt	2,932,494 tons	3,275,870 tons
Sandstone and conglomerate	1,855,013 tons	2,008,277 tons
Clay	2,509,148 tons	2,523,168 tons
Shale	2,077,717 tons	2,087,990 tons
Gypsum	205,025 tons	205,025 tons
Peat	17,483 tons	18,764 tons
Gas	³	144,815,438 MCF ⁴
Oil	³	9,196,711 barrels

¹Includes reported and estimated values. Some operations reporting sales did not report a value for those sales.

²The production figures for the industrial minerals are estimates. Many operators do not know actual production. Some operators report estimates, other operators do not report any production. For those operators who do not report production, production is assumed to equal sales.

³Figure not available.

⁴Thousand cubic feet.

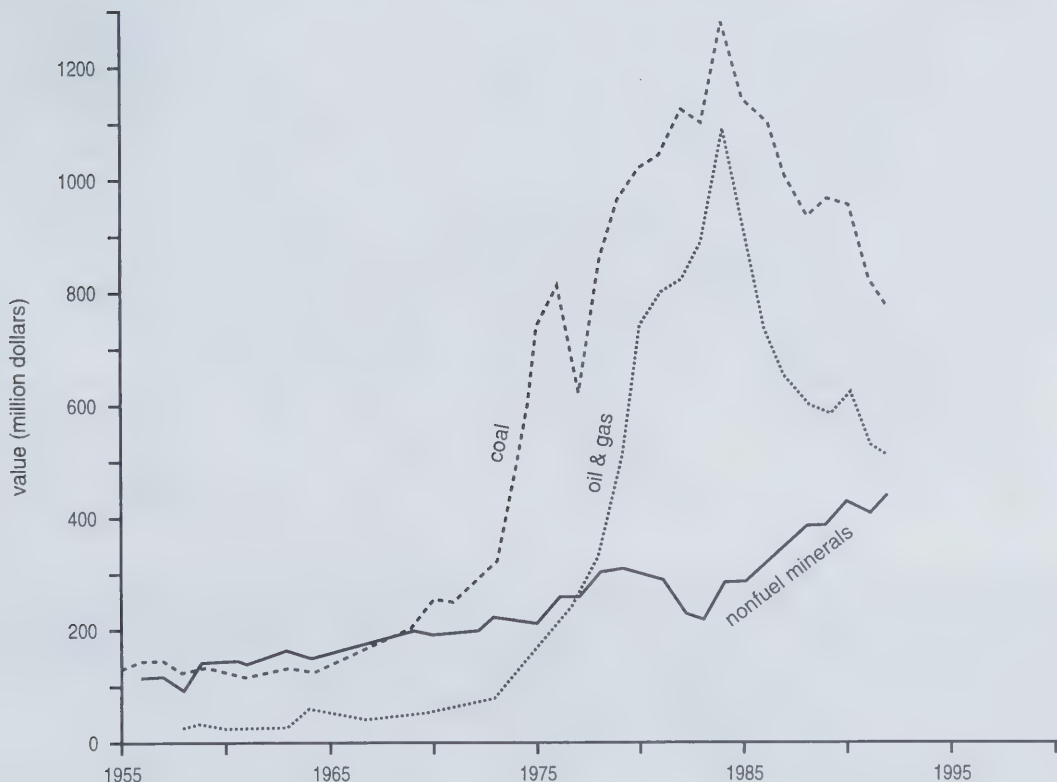


FIGURE 1.—Value of coal, nonfuel minerals, and oil and gas in Ohio.

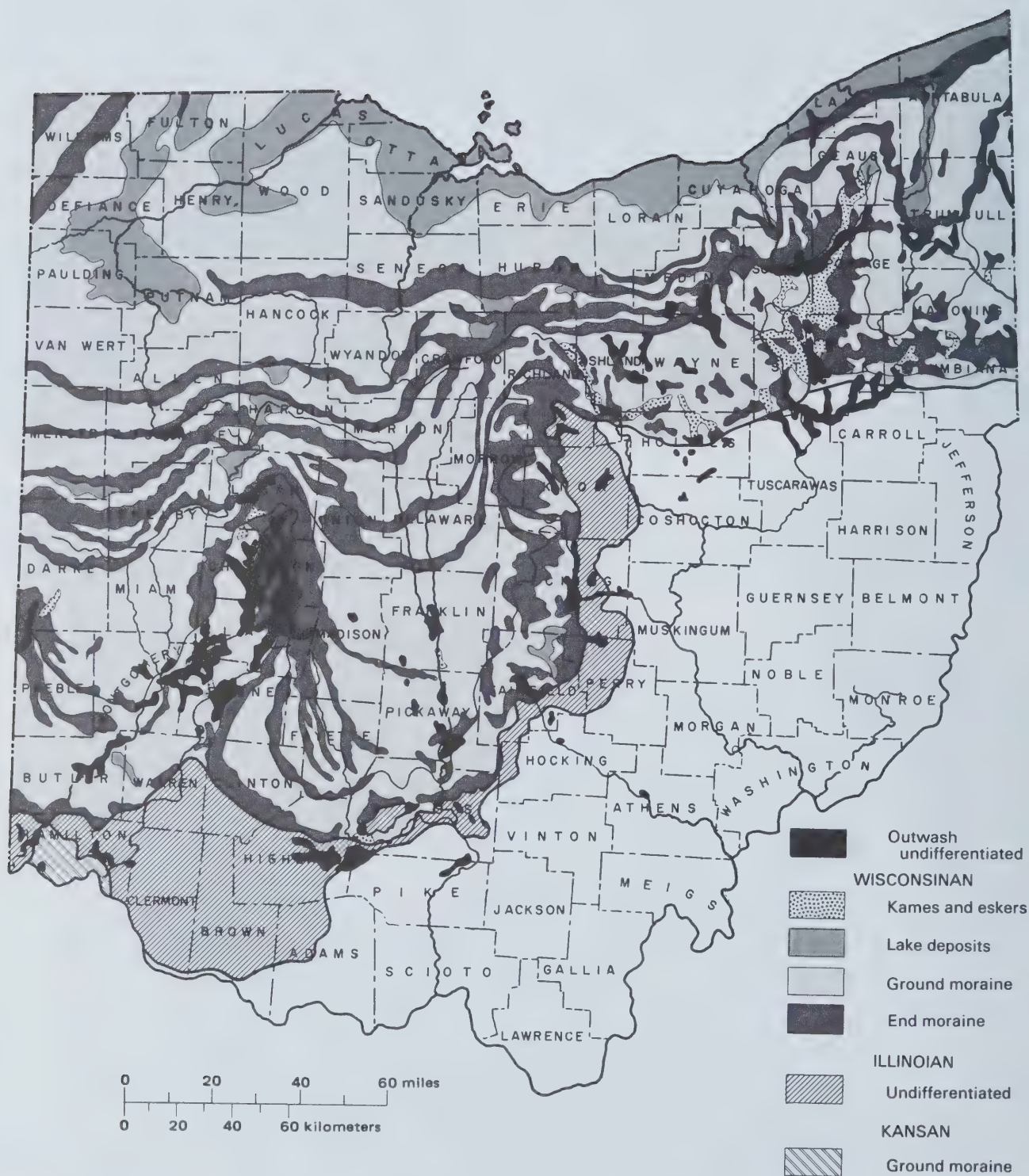


FIGURE 2.—Generalized map of the glacial deposits of Ohio. Continental glaciers advanced over the Ohio landscape several times during the Ice Age. These glaciers deposited unconsolidated materials on top of the bedrock over nearly two-thirds of the state. Most of Ohio's sand and gravel production comes from kames, eskers, and outwash, which were deposited by meltwater from the glaciers. Other glacially derived industrial minerals in Ohio include peat and clay.

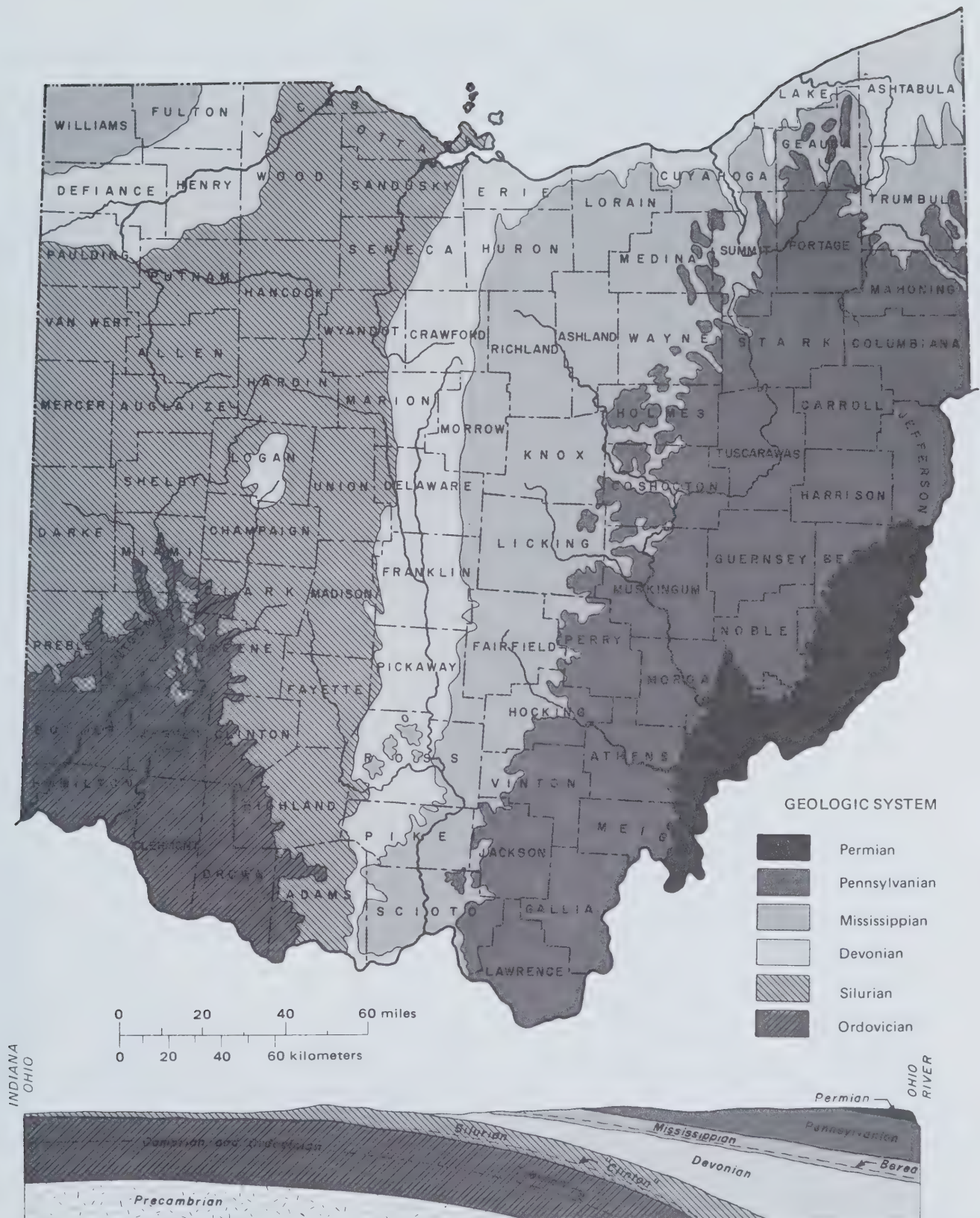


FIGURE 3.—Generalized geologic map and cross section of Ohio. Mineral production occurs throughout Ohio and from every geologic system from the Cambrian to the Permian. Coal, limestone and dolomite, sandstone and conglomerate, shale, clay, gypsum, salt, and oil and gas are produced from Ohio bedrock.

COAL

Coal was produced by 84 companies at 191 mines in 22 Ohio counties during 1992. Production increased 0.2 percent from 1991, totalling 29,403,063 tons in 1992; 17,412,656 tons (59.2 percent of total production) were produced at 181 surface mines, and 11,990,407 tons (40.8 percent of total production) were produced at 10 underground mines. Of 27 coal-producing states in the U.S., Ohio is the 11th-largest. The top five states in descending order of production are Wyoming, West Virginia, Kentucky, Pennsylvania, and Illinois. These five states produced 64.3 percent of the nation's coal in 1992. Ohio produced 3 percent of the nation's coal in 1992. Ohio also ranks third nationally in coal consumption, using 6.6 percent of the coal consumed in 1992. The top five coal-consuming states in descending order of consumption are Texas, Indiana, Ohio, Pennsylvania, and Kentucky. These five states used 33.6 percent of the coal consumed by all 50 states in 1992.²

In comparison to 1991, there were 3 fewer mines reporting production of 50,000 tons or less, 5 fewer mines producing between 50,000 and 500,000 tons, 2 more mines producing between 500,000 and 1,000,000 tons, and 1 more mine reporting production of 1,000,000 tons or greater; there was a net decrease of 7 mines in 1992.

The five leading counties for 1992 production were Belmont, Meigs, Vinton, Muskingum, and Harrison Counties; these counties produced 59.3 percent of the 1992 total production. A total of 28,904,245 tons of coal were sold in 1992, and had a total value³ of \$775,986,936. The average price per ton of all

coal sold was \$26.85; surface-mined coal averaged \$24.41 per ton and underground-mined coal averaged \$30.43.

In underground mining, 31.3 percent of the coal was mined by continuous miner and 68.7 percent was produced by longwall mining; no coal was produced by conventional mining in 1992. In surface operations, 5.6 percent of the coal produced was auger mined, and 94.4 percent was surface mined.

The Pittsburgh (No. 8) coal was the most heavily mined seam, followed by the Clarion (No. 4A), Meigs Creek (No. 9), Middle Kittanning (No. 6), and Lower Kittanning (No. 5) seams. Coal produced from these five seams constituted 82.6 percent of the total 1992 production.

A total of 18,473,112 tons of washed coal were reported in 1992. Reports from 18 coal-washing plants indicate an average 33.7 percent loss in washing.

Trucking was the primary means of coal disposition, carrying 56.8 percent of the total sales. Conveyor belts carried 24.2 percent, rail transported 10.8 percent, and water transport carried 8.2 percent of the coal sold in 1992. A total of 2.8 percent of the coal produced was reported as stored.

The total average annual employment reported in 1992 was 4,632 employees, 2,624 of whom were production employees. Production employees worked an average of 159 days producing coal in 1992. The average annual wage earned by all production employees was \$38,594, based on those employees for whom wages were reported. The average annual wage for surface-mine production employees was \$33,987, and the average annual wage for underground-mine production employees was \$45,455. Wages earned by all employees totalled \$181,317,943 in 1992.

²Information from U.S. Department of Energy, Energy Information Administration.

³Includes reported and estimated values. See footnote 1, p. 9.

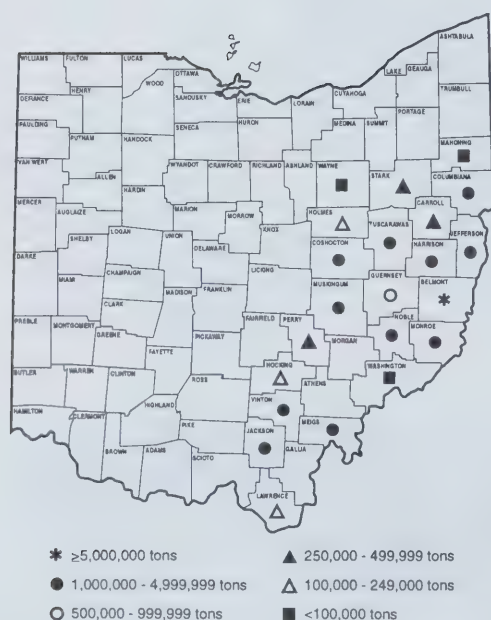


FIGURE 4.—Coal sales in Ohio in 1992, by county.

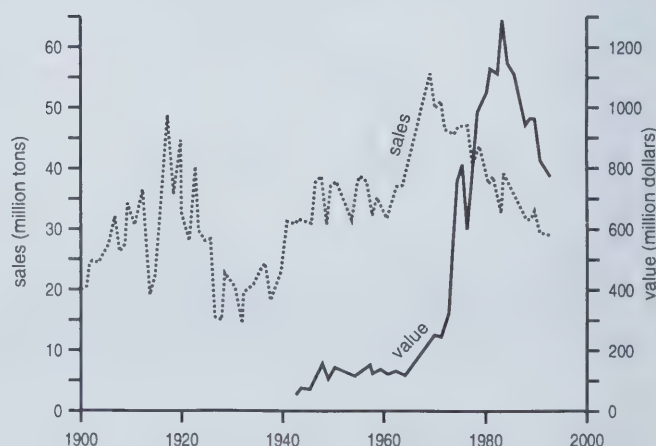


FIGURE 5.—Sales and value of coal in Ohio.

TABLE 2. — 1992 Ohio coal production by production-size group and change from 1991

Production-size group	1992		Change from 1991 (short tons)
	Number of mines reporting	Production (short tons)	
Under 25,000 tons	70	723,158	- 57,614
25,000 to 49,999 tons	37	1,402,581	+ 261,462
50,000 to 99,999 tons	34	2,336,595	- 318,592
100,000 to 249,999 tons	33	5,147,760	- 202,841
250,000 to 499,999 tons	6	2,138,776	- 395,140
500,000 to 999,999 tons	5	3,666,326	+ 103,780
1,000,000 tons and over	6	13,987,867	+ 654,325
TOTAL	191	29,403,063	+ 45,380

TABLE 3. — 1992 Ohio coal production by county and mining method

County ¹	All methods (short tons)	Total number of mines	Underground					Surface			
			Number of underground mines reporting	Production (short tons)				Number of surface mines reporting	Production (short tons)		
				Total underground	Longwall	Conventional	Continuous miner		Total surface	Strip	Auger
Belmont	5,330,313	21 ²	2	3,636,567	2,728,895		937,672	19 ²	1,663,746	1,468,504	195,242
Carroll	349,973	11						11	349,973	342,789	7,184
Columbiana	1,087,279	15	3	615,524			615,524	12	471,755	428,246	43,509
Coshocton	1,226,435	11						11	1,226,435	1,169,617	56,818
Guernsey	562,807	6						6	562,807	484,578	78,229
Harrison	2,130,988	11	1	888,232			888,232	10	1,242,756	1,146,829	95,927
Hocking	108,573	3						3	108,573	108,573	
Holmes	212,658	5						5	212,658	212,568	
Jackson	1,156,225	8 ²						8 ²	1,156,225	1,156,225	
Jefferson	1,847,670	17 ²	1	156,775			156,775	16 ²	1,690,895	1,588,744	102,151
Lawrence	227,079	1						1	227,079	227,079	
Mahoning	7,552	2						2	7,552	7,552	
Meigs	3,918,949	2	2	3,918,949	3,270,440		648,509				
Monroe	1,461,650	1	1	1,461,650	1,153,164		308,486				
Muskingum	2,412,803	3 ²						3 ²	2,412,803	2,290,640	122,163
Noble	1,195,606	10						10	1,195,606	1,146,345	49,261
Perry	262,085	7						7	262,085	221,038	41,047
Stark	331,867	8						8	331,867	331,867	
Tuscarawas	1,888,644	38						38	1,888,644	1,705,552	183,092
Vinton	3,642,356	10 ²	1 ³	1,282,710	1,080,961		201,749	10 ²	2,359,646	2,359,646	
Washington	29,576	1 ⁴						1 ⁴	29,576	29,576	
Wayne	11,975	1 ²						1 ²	11,975	11,975	
TOTAL	29,403,063	191	10	11,990,407	8,233,460	0	3,756,947	181	17,412,656	16,438,033	974,623

¹Production from mines operating in more than one county was evenly split between the counties involved unless a by-county breakdown was provided by the operator.²Does not include mines extending into this county from adjoining counties.³This mine extends into Vinton County from Meigs County and is not included in the total number of mines.⁴This mine extends into Washington County from Noble County and is not included in the total number of mines.

TABLE 4. — 1992 Ohio coal production by county and month

County ¹	Production (short tons)												
	Total annual	January	February	March	April	May	June	July	August	September	October	November	December
Belmont	5,330,313	414,876	459,516	488,103	398,473	325,581	513,705	553,929	453,540	412,553	314,223	511,330	484,484
Carroll	349,973	38,012	35,275	38,808	28,701	32,433	29,335	22,087	23,230	25,149	27,091	25,614	24,238
Columbiana	1,087,279	123,924	115,387	108,798	115,004	95,955	91,065	64,182	57,940	62,017	86,890	80,161	85,956
Coshocton	1,226,435	127,638	101,335	100,694	94,665	97,680	94,299	73,149	90,936	111,296	102,369	118,088	114,286
Guernsey	562,807	57,859	58,882	62,341	48,893	44,033	45,777	48,208	24,958	31,254	39,335	45,731	55,536
Harrison	2,130,988	159,789	151,317	170,191	170,866	176,400	178,977	162,574	169,270	184,674	213,576	201,534	191,820
Hocking	108,573	3,787	6,841	5,852	2,758	2,676	1,951	1,397	14,834	41,802	23,602	1,337	1,736
Holmes	212,658	16,577	16,578	16,579	18,915	18,915	18,918	14,313	13,013	15,480	22,183	22,628	18,559
Jackson	1,156,225	110,368	102,056	79,449	71,493	75,021	76,949	91,984	91,836	77,554	115,597	121,639	142,279
Jefferson	1,847,670	122,806	137,122	143,131	141,376	166,949	183,617	161,863	174,872	165,408	154,238	141,493	154,805
Lawrence	227,079	41,386	32,092	24,097	24,603	34,418	38,289	26,126	6,068	0	0	0	0
Mahoning	7,552	1,524	881	2,467	0	0	0	289	0	718	103	581	989
Meigs	3,918,949	463,250	433,490	428,304	269,560	251,633	299,649	358,076	353,864	228,331	302,348	220,184	310,260
Monroe	1,461,650	83,250	22,875	133,987	134,543	135,154	152,875	113,009	96,827	142,974	148,754	130,453	166,949
Muskingum	2,412,803	175,072	186,734	147,462	147,978	220,296	185,236	161,097	256,935	265,452	218,562	208,188	239,791
Noble	1,195,606	187,299	135,575	192,621	179,406	91,278	49,146	54,779	58,321	59,351	51,486	64,946	71,398
Perry	262,085	14,111	13,398	13,974	17,843	9,756	15,689	33,408	34,345	27,218	26,711	28,344	27,288
Stark	331,867	30,677	30,025	20,815	28,866	26,817	30,648	25,851	27,711	27,408	28,294	26,225	28,530
Tuscarawas	1,888,644	155,468	155,716	136,375	139,937	147,455	170,364	144,586	163,628	160,453	153,802	158,338	202,522
Vinton	3,642,356	342,815	323,443	307,925	216,549	275,352	315,853	348,742	329,308	294,919	332,780	228,538	326,132
Washington	29,576	8,606	2,949	2,418	8,684	4,705	2,214	0	0	0	0	0	0
Wayne	11,975	1,105	1,105	1,105	597	597	598	0	0	0	2,289	2,289	2,290
TOTAL	29,403,063	2,680,199	2,522,592	2,625,496	2,259,710	2,233,104	2,495,154	2,459,649	2,441,436	2,334,011	2,364,233	2,337,631	2,649,848

¹Production from mines operating in more than one county was evenly split between the counties involved unless a by-county breakdown was provided by the operator.



Drift openings and wire-rope coal-car haulage system at Big Five mine near Stewartsville, Richland Township, Belmont County, circa 1900. Photo courtesy of Ohio Historical Society, Jeffrey Mining Equipment collection.



Shipment of coal by truck. Date and location are unknown. Photo courtesy of Ohio Historical Society, Steubenville Coal and Mining Company collection.

TABLE 5. — 1992 Ohio coal production

County ¹	Production									
	Total	Quakertown (No. 2)	Lower Mercer (No. 3)	Upper Mercer (No. 3A)	Brookville (No. 4)	Winters	Clarion (No. 4A)	Lower Kittanning (No. 5)	Strasburg (No. 5A)	Middle Kittanning (No. 6)
Belmont	5,330,313									
Carroll	349,973							31,807		170,649
Columbiana	1,087,279				42,858			24,618		146,453
Coshocton	1,226,435							237,163		989,272
Guernsey	562,807									
Harrison	2,130,988									
Hocking	108,573							5,343		51,554
Holmes	212,658				13,197			65,758		133,703
Jackson	1,156,225	17,755	11,709	28,633	53,762	59	609,390	341,677	8,473	77,237
Jefferson	1,847,670									2,499
Lawrence	227,079						75,692	75,694		75,693
Mahoning	7,552			1,007	4,872			1,673		
Meigs	3,918,949						3,918,949			
Monroe	1,461,650									
Muskingum	2,412,803							49,811		117,810
Noble	1,195,606									
Perry	262,085							46,875		199,811
Stark	331,867				62,326			169,188		100,353
Tuscarawas	1,888,644			144,125	45,905			445,013	951	762,658
Vinton	3,642,356		126,348		597,449	181,953	1,558,834	713,434		464,302
Washington	29,576									
Wayne	11,975				5,107			3,434		3,434
TOTAL	29,403,063	17,755	138,057	173,765	825,476	182,012	6,162,865	2,211,488	9,424	3,295,428

¹Production from mines operating in more than one county was evenly split between the counties involved unless a by-county breakdown was provided by the operator.



Longwall mining at Southern Ohio Coal Company's Meigs 31 mine in Meigs and Vinton Counties. This longwall unit set a world production record in 1992 when 527,835 raw tons were mined in a single month. This mine was accidentally flooded in July 1993. Attempts are being made to pump out the mine so longwalling can continue. Photo courtesy of American Electric Power Service Corporation.

by county and seam

(short tons)										County
Lower Freeport (No. 6A)	Upper Freeport (No. 7)	Mahoning (No. 7A)	Anderson	Harlem	Pittsburgh (No. 8)	Pomeroy-Redstone (No. 8A)	Meigs Creek (No. 9)	Waynesburg (No. 11)	Washington (No. 12)	
460,955	369,921	42,474		147,517	4,148,303	2,622	802,880	341,384	35,124	Belmont
	274,677				281,758		6,372			Carroll
888,232	8,223			73,597	1,059,777	61,520	39,639			Columbiana
9,529	42,147									Coshocton
	7,530			54,190	1,379,305	201,299	9,454			Guernsey
22,072	178,851									Harrison
										Hocking
										Holmes
										Jackson
										Jefferson
					1,461,650					Lawrence
							2,245,182			Mahoning
										Meigs
										Monroe
	12,967		23,087		1,193		1,158,359			Muskingum
	15,399									Noble
	489,992									Perry
36										Stark
										Tuscarawas
										Vinton
							29,576			Washington
										Wayne
1,380,824	1,399,707	42,474	23,087	275,304	8,331,986	265,441	4,291,462	341,384	35,124	TOTAL



Coal miners setting roof-support timbers in an underground mine near New Straitsville, Ohio. Date and exact location are unknown. Photo courtesy of Ohio Historical Society, WPA Ohio collection.

TABLE 6. — 1992 Disposition of Ohio coal, by county

County ¹	Number of mines	Disposition ¹ (short tons)						Stored
		Total ²	Rail	Water	Truck	Conveyor	Unspecified/ other	
Belmont	21 ³	5,130,966	3,095,276	215,578	1,820,112			229,175
Carroll	11	348,384			348,384			1,589
Columbiana	16	1,095,716			1,095,716			8,293
Coshocton	11	1,238,263		205,444	1,032,819			27,439
Guernsey	6	558,137		59,895	498,242			8,616
Harrison	11	2,158,310		83,467	2,074,843			19,452
Hocking	3	108,573		8,854	99,719			
Holmes	5	212,658			212,658			
Jackson	8 ³	1,045,067		184,454	860,613			21,915
Jefferson	17 ³	1,838,897		135,032	1,703,865			22,999
Lawrence	1	227,079			227,079			
Mahoning	2	7,552			7,552			
Meigs	2	3,923,645				3,923,645		11,084
Monroe	1	1,318,156		1,318,156				332,862
Muskingum	3 ³	2,406,780			818,828	1,587,952		11,675
Noble	10	1,193,861		2,923	743,160	447,753	25	6,867
Perry	7	262,085			262,085			
Stark	8	331,867			331,867			
Tuscarawas	38	1,860,286	26,721		1,833,565			86,205
Vinton	10 ³	3,596,412		158,968	2,413,232	1,024,212		47,218
Washington	1 ⁴	29,576			29,576			
Wayne	1 ³	11,975			11,975			
TOTAL	192	28,904,245	3,121,997	2,372,771	16,425,890	6,983,562	25	835,389

¹Tonnage of coal shipped from mines operating in more than one county was evenly split between the counties involved and type(s) of disposition reported unless a by-county breakdown was provided by the operator.

²Does not reflect tonnage stored. Reflects tonnage sold and shipped from mine.

³Does not include mines extending into this county from adjoining counties.

⁴This mine extends into Washington County from Noble County and is not included in the total number of mines.

TABLE 7. — 1992 Rail shipments of Ohio coal, by county of origin and carrier

County	Number of mines	Shipments (short tons)			
		Total	Conrail	Ohio Central	Wheeling & Lake Erie
Belmont	2	3,095,276	2,846,188		249,088
Tuscarawas	2	26,721		26,721	
TOTAL	4	3,121,997	2,846,188	26,721	249,088

TABLE 8. — 1992 Washed Ohio coal

		Raw coal (short tons)	Washed coal (short tons)	Loss in washing (short tons)	Loss in washing (percent)	Percent of all washed coals
By type of mining	From surface mines	9,035,263 ¹	7,225,674 ¹	1,809,589	20.0	39.1
	From underground mines	18,821,227	11,247,438	7,573,789	40.2	60.9
	TOTAL	27,856,490	18,473,112 ²	9,383,378	33.7	100.0
By seam	Lower Mercer (No. 3A)	99,943	87,950	11,993	12.0	0.5
	Brookville (No. 4)	212,040 ¹	186,572	25,468	12.0	1.0
	Winters	78,365	54,516	23,849	30.4	0.3
	Clarion (No. 4A)	10,610,047	5,690,843 ¹	4,919,204	46.4	30.8
	Lower Kittanning (No. 5)	768,316 ¹	577,028 ¹	191,288	24.9	3.1
	Middle Kittanning (No. 6)	637,063 ¹	457,441 ¹	179,622	28.2	2.5
	Lower Freeport (No. 6A)	430,243	344,060	86,183	20.0	1.9
	Upper Freeport (No. 7)	254,087 ¹	182,748 ¹	71,339	28.1	1.0
	Pittsburgh (No. 8)	8,044,841 ¹	5,324,830	2,720,011	33.8	28.8
	Meigs Creek (No. 9)	3,266,062	2,694,272	571,790	17.5	14.6
	Waynesburg (No. 11)	338,439 ¹	224,429	114,010	33.7	1.2
	Washington (No. 12)	31,730 ¹	21,041	10,689	33.7	0.1
	Other ³	3,085,314	2,627,382	457,932	14.8	14.2
	TOTAL	27,856,490	18,473,112 ²	9,383,378	33.7	100.0

¹The raw tonnage (before washing) and/or the clean tonnage (after washing) of coal was estimated for those mines which failed to report this information. These estimates were calculated using a statewide-average loss-in-washing percentage based on raw/washed coal values for type of mining and for seam deemed to be reliable.

²These figures reflect total washed coal in 1992 and do not necessarily reflect only 1992 production. In 1992, 54.3% of the total production was reported as washed. Coal not designated as washed or unwashed was assumed to be unwashed.

³Unspecified tonnages of seams listed above.

TABLE 9. — 1992 Dollar value of coal at mine by county and mining method

County ¹	Surface				Underground				Total			
	No. of mines	Tonnage sold (short tons)	Value at mine ² (dollars)	Per ton average (dollars)	No. of mines	Tonnage sold (short tons)	Value at mine ² (dollars)	Per ton average (dollars)	No. of mines	Tonnage sold (short tons)	Value at mine ² (dollars)	Per ton average (dollars)
Belmont	19 ³	1,648,791	\$39,980,624	\$24.25	2	3,482,175	\$92,144,552	\$26.46	21 ³	5,130,966	\$132,125,176	\$25.75
Carroll	11	348,384	8,776,202	25.19					11	348,384	8,776,202	25.19
Columbiana	13	480,192	11,341,093	23.62	3	615,524	7,885,465	12.81	16	1,095,716	19,226,558	17.55
Coshocton	11	1,238,263	34,643,936	27.98					11	1,238,263	34,643,936	27.98
Guernsey	6	558,137	16,779,128	30.06					6	558,137	16,779,128	30.06
Harrison	10	1,237,204	29,438,394	23.79	1	921,106	21,694,760	23.55	11	2,158,310	51,133,154	23.69
Hocking	3	108,573	2,109,467	19.43					3	108,573	2,109,467	19.43
Holmes	5	212,658	3,757,127	17.67					5	212,658	3,757,127	17.67
Jackson	8 ³	1,045,067	20,587,350	19.70					8 ³	1,045,067	20,587,350	19.70
Jefferson	16 ³	1,682,122	44,835,400	26.65	1	156,775	3,686,947	23.52	17 ³	1,838,897	48,522,347	26.39
Lawrence	1	227,079	4,560,000	20.08					1	227,079	4,560,000	20.08
Mahoning	2	7,552	187,665	24.85					2	7,552	187,665	24.85
Meigs					2	3,923,645	148,785,701	37.92	2	3,923,645	148,785,701	37.92
Monroe					1	1,318,156	33,128,688	25.13	1	1,318,156	33,128,688	25.13
Muskingum	3 ³	2,406,780	83,168,823	34.56					3 ³	2,406,780	83,168,823	34.56
Noble	10	1,193,861	29,793,176	24.96					10	1,193,861	29,793,176	24.96
Perry	7	262,085	5,739,750	21.90					7	262,085	5,739,750	21.90
Stark	8	331,867	4,396,777	13.25					8	331,867	4,396,777	13.25
Tuscarawas	38	1,860,286	42,353,453	22.77					38	1,860,286	42,353,453	22.77
Vinton	10 ³	2,312,428	36,874,279	15.95	1 ⁴	1,283,984	48,732,407	37.95	10 ³	3,596,412	85,606,686	23.80
Washington	1 ⁵	29,576	486,022	16.43					1 ⁵	29,576	486,022	16.43
Wayne	1 ³	11,975	119,750	10.00					1 ³	11,975	119,750	10.00
TOTAL	182	17,202,880	\$419,928,416	\$24.41	10	11,701,365	\$356,058,520	\$30.43	192	28,904,245	\$775,986,936	\$26.85

¹Sales reported from mines operating in more than one county were evenly split between the counties involved unless a by-county breakdown was provided by the operator.

²The FOB value of coal sold was estimated for those mines which failed to report this information. These estimates were calculated using a countywide-average price per ton by mining method based on reported FOB values deemed to be reliable.

³Does not include mines extending into this county from adjoining counties.

⁴This mine extends into Vinton County from Meigs County and is not included in the total number of mines.

⁵This mine extends into Washington County from Noble County and is not included in the total number of mines.

TABLE 10. — 1992 Ohio coal-mine employment¹, by occupational group and month

Occupational group	Number of employees												
	Monthly average	January	February	March	April	May	June	July	August	September	October	November	December
All production workers	2,624	2,757	2,838	2,833	2,803	2,813	2,797	2,653	2,481	2,439	2,405	2,330	2,333
Underground mines	1,054	1,053	1,175	1,168	1,170	1,162	1,149	1,111	961	927	925	929	918
Surface mines	1,570	1,704	1,663	1,665	1,633	1,651	1,648	1,542	1,520	1,512	1,480	1,401	1,415
Supervisory, technical, and clerical	904	960	958	953	951	958	953	930	898	849	816	809	814
Central preparation plant, central shop, etc.	676	693	694	700	694	686	691	683	669	665	665	644	630
Reclamation	183	179	169	173	191	207	210	213	221	216	156	145	118
Other ²	245	285	279	283	288	289	285	273	259	192	173	168	165
TOTAL	4,632	4,874	4,938	4,942	4,927	4,953	4,936	4,752	4,528	4,361	4,215	4,096	4,060

¹Employment was estimated for mines not reporting employment.²"Other" includes all employees who do not belong in any other employment category, such as mobile equipment operators, mechanics, or general outside workers.TABLE 11. — 1992 Ohio coal-mine production employment¹, by county and month

County ²	Number of employees												
	Monthly average	January	February	March	April	May	June	July	August	September	October	November	December
Belmont	350	387	350	368	380	370	337	362	353	331	318	325	316
Carroll	66	87	84	84	84	86	75	51	47	47	47	49	47
Columbiana	106	135	133	123	127	124	127	92	86	82	79	83	81
Coshocton	98	122	100	104	98	90	86	67	90	101	99	114	102
Guernsey	57	66	61	73	57	50	57	62	41	43	55	58	59
Harrison	157	163	173	156	155	157	162	140	141	153	169	159	152
Hocking	15	6	22	22	7	5	5	7	14	35	45	5	5
Holmes	19	22	20	19	19	18	18	19	19	19	18	18	18
Jackson	78	87	87	88	79	79	82	81	80	80	67	66	64
Jefferson	202	184	201	208	214	227	236	213	229	198	176	161	178
Lawrence	30	52	48	35	36	48	44	40	42	11	0	0	0
Mahoning	2	5	4	4	1	1	1	1	1	1	4	2	2
Meigs	427	490	492	492	491	493	494	487	336	337	337	336	335
Monroe	153	30	166	164	166	166	166	163	163	160	164	164	164
Muskingum	176	142	140	143	181	181	180	219	217	212	187	156	156
Noble	96	144	146	146	110	109	106	67	56	62	68	67	65
Perry	40	44	45	45	30	39	39	38	37	35	44	42	42
Stark	37	45	38	38	39	35	35	33	33	32	39	39	39
Tuscarawas	196	215	207	202	213	212	219	183	185	186	176	173	186
Vinton	314	320	313	311	309	315	320	323	306	309	312	312	321
Washington	2	6	5	4	4	5	5	0	0	0	0	0	0
Wayne	3	5	3	4	3	3	3	5	5	5	1	1	1
TOTAL	2,624	2,757	2,838	2,833	2,803	2,813	2,797	2,653	2,481	2,439	2,405	2,330	2,333

¹Employment was estimated for mines not reporting employment.²For those operations reporting activity in more than one county, employment was evenly split (to the nearest whole employee) between the counties involved unless a by-county breakdown was provided by the operator.

TABLE 12. — 1992 Ohio coal-mine employment¹ in central preparation plants, central shops, etc., by county and month

County ²	Number of employees												
	Monthly average	January	February	March	April	May	June	July	August	September	October	November	December
Belmont	65	69	59	72	71	69	67	66	64	64	62	63	59
Carroll	3	4	2	2	3	4	5	5	5	4	3	0	0
Columbiana	48	46	46	46	51	51	51	47	47	47	48	48	48
Coshocton	31	36	36	36	29	29	29	29	29	29	29	29	29
Harrison	24	24	25	25	25	24	25	24	23	23	24	24	23
Holmes	4	4	4	4	4	4	4	4	4	4	4	4	4
Jackson	10	10	10	10	10	10	10	11	11	11	10	10	10
Jefferson	18	12	11	10	16	15	23	22	22	21	22	21	20
Lawrence	23	28	29	27	26	25	25	23	22	20	16	16	16
Mahoning	7	9	8	8	9	8	6	5	4	4	6	7	7
Meigs	67	72	70	69	69	66	67	68	64	66	65	66	65
Monroe	35	18	39	35	35	35	35	35	35	35	39	39	39
Muskingum	158	119	119	120	155	155	155	192	192	190	183	162	159
Noble	31	80	80	79	40	40	40	0	0	0	5	5	5
Perry	4	5	5	5	3	3	3	4	4	4	2	2	3
Scioto	22	23	23	23	23	23	23	23	23	23	23	23	16
Stark	3	1	0	0	0	0	0	0	0	0	0	0	0
Tuscarawas	38	40	40	40	37	39	36	37	34	36	37	37	37
Vinton	88	93	88	89	88	86	87	88	86	84	87	88	90
TOTAL	676	693	694	700	694	686	691	683	669	665	665	644	630

¹Employment was estimated for mines not reporting employment.²For those operations reporting activity in more than one county, employment was evenly split (to the nearest whole employee) between the counties involved unless a by-county breakdown was provided by the operator.³Averages fewer than one employee per month.TABLE 13. — 1992 Ohio coal-mine employment¹ in supervisory, technical, and clerical positions, by county and month

County ²	Number of employees												
	Monthly average	January	February	March	April	May	June	July	August	September	October	November	December
Belmont	153	166	166	164	168	168	159	172	167	127	129	128	127
Carroll	16	14	14	13	11	12	12	22	20	20	19	17	16
Columbiana	28	32	32	32	28	28	30	26	26	26	26	26	26
Coshocton	49	61	59	56	51	51	48	43	52	52	38	41	39
Gallia	3	1	1	1	0	0	0	0	0	0	0	0	0
Guernsey	11	13	12	15	11	10	11	12	8	9	10	11	11
Harrison	31	32	32	31	30	30	31	28	28	33	35	34	33
Hocking	3	3	4	4	3	3	3	3	4	5	1	0	0
Holmes	1	2	2	2	0	0	0	0	0	0	0	0	0
Jackson	13	11	12	11	17	17	16	12	11	12	12	13	12
Jefferson	45	40	44	45	52	56	56	48	51	44	36	30	32
Lawrence	9	9	9	9	11	11	11	10	10	9	6	6	6
Mahoning	5	5	5	5	6	6	6	4	4	4	5	4	4
Meigs	163	176	175	176	175	174	177	176	150	145	144	146	146
Monroe	71	76	75	73	73	74	72	69	67	67	70	69	70
Muskingum	110	85	85	83	106	108	110	128	125	124	123	123	125
Noble	27	60	57	58	33	32	33	7	7	7	9	9	9
Perry	12	14	14	14	14	14	15	13	13	13	7	7	8
Scioto	13	13	13	13	13	13	13	13	13	13	13	12	12
Stark	5	6	6	6	6	6	5	4	4	4	4	4	4
Tuscarawas	45	48	48	48	48	50	49	45	45	44	37	36	39
Vinton	94	93	92	94	95	94	96	95	93	91	92	93	95
Washington	3	0	1	0	0	1	0	0	0	0	0	0	0
TOTAL	904	960	958	953	951	958	953	930	898	849	816	809	814

¹Employment was estimated for mines not reporting employment.²For those operations reporting activity in more than one county, employment was evenly split (to the nearest whole employee) between the counties involved unless a by-county breakdown was provided by the operator.³Averages fewer than one employee per month.

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TABLE 14. — 1992 Ohio surface coal-mine reclamation employment¹, by county and month

County ²	Number of employees												
	Monthly average	January	February	March	April	May	June	July	August	September	October	November	December
Athens	1	0	0	0	0	0	0	4	5	4	0	0	0
Belmont	9	6	1	10	9	9	10	14	15	14	8	7	6
Carroll	4	1	0	0	5	5	5	4	6	5	7	7	6
Columbiana	7	6	6	6	8	8	8	12	11	11	4	4	4
Coshocton	37	44	43	45	48	49	49	49	51	51	6	6	6
Guernsey	3	3	2	2	2	3	3	2	2	2	3	4	3
Harrison	5	1	1	1	3	2	3	8	8	7	8	8	8
Hocking	1	0	0	0	0	0	0	0	0	0	0	9	3
Jackson	4	5	5	5	4	5	5	3	3	3	3	3	3
Jefferson	9	10	12	11	10	8	9	10	12	14	6	3	2
Lawrence	3	0	0	0	0	0	0	0	0	0	12	13	5
Mahoning	2	0	0	0	0	4	6	6	4	3	0	0	0
Muskingum	63	41	41	39	55	63	63	81	81	82	81	65	58
Noble	12	29	29	27	16	17	18	1	1	1	2	2	2
Perry	5	5	5	5	5	5	5	5	5	5	5	5	5
Stark	4	7	8	6	6	6	5	2	2	2	3	2	2
Tuscarawas	13	19	14	14	19	22	20	11	14	11	7	6	4
Vinton	1	2	2	2	1	1	1	1	1	1	1	1	1
TOTAL	183	179	169	173	191	207	210	213	221	216	156	145	118

¹Employment was estimated for mines not reporting employment.²For those operations reporting activity in more than one county, employment was evenly split (to the nearest whole employee) between the counties involved unless a by-county breakdown was provided by the operator.TABLE 15. — 1992 Ohio coal-mine employment¹ in other positions², by county and month

County ³	Number of employees												
	Monthly average	January	February	March	April	May	June	July	August	September	October	November	December
Belmont	106	143	135	135	134	130	124	118	122	58	58	59	55
Carroll	4	8	8	9	10	9	9	0	0	0	0	0	0
Columbiana	4	6	6	5	5	5	6	1	1	1	5	5	5
Coshocton	4	5	5	5	4	4	4	4	4	4	1	1	1
Harrison	4	7	7	7	7	7	7	1	1	1	0	0	0
Jackson	12	13	11	12	11	11	12	18	13	12	11	10	11
Jefferson	11	9	9	9	9	9	9	19	18	18	7	7	7
Lawrence	4	7	7	6	5	5	5	5	5	5	0	0	0
Meigs	34	34	34	34	34	36	37	36	32	31	32	31	31
Monroe	10	1	6	11	11	11	11	11	11	11	11	11	11
Muskingum	19	15	15	15	20	20	18	22	23	23	22	19	18
Noble	4	10	10	10	5	5	5	0	0	0	1	1	1
Perry	2	0	0	0	5	5	5	5	5	2	0	0	0
Scioto	3	6	3	3	3	3	3	3	3	3	3	3	3
Stark	4	0	0	0	1	2	1	0	0	0	0	0	0
Tuscarawas	2	1	1	1	2	2	6	1	1	1	2	0	2
Vinton	22	20	22	21	22	25	23	29	20	22	20	21	20
TOTAL	245	285	279	283	288	289	285	273	259	192	173	168	165

¹Employment was estimated for mines not reporting employment.²"Other positions" includes all employees who do not belong in any other employment category, such as mobile equipment operators, mechanics, or general outside workers.³For those operations reporting activity in more than one county, employment was evenly split (to the nearest whole employee) between the counties involved unless a by-county breakdown was provided by the operator.⁴Averages fewer than one employee per month.

TABLE 16. — 1992 Wage and salary payments to Ohio coal-mine employees, by county and occupational group

County ¹	Wage and salary payments (nearest whole dollar) ²						
	All occupations	Underground production employees	Surface production employees	Central preparation plant, central shop, etc.	Supervisory, technical, and clerical	Reclamation	Other
Athens	\$20,511					\$20,511	
Belmont	28,849,403	\$10,222,478	\$4,930,276	\$2,487,119	\$6,955,209	122,976	\$4,131,345
Carroll	2,182,034		1,541,087	37,329	360,965	62,274	180,379
Columbiana	6,186,909	2,200,212	1,462,816	1,321,048	891,077	183,833	127,923
Coshocton	9,234,233		4,611,326	1,016,822	2,383,209	1,131,750	91,126
Gallia	6,000				6,000		
Guernsey	2,379,076		1,958,777		392,281	28,018	
Harrison	9,731,274	2,734,508	3,888,359	1,170,988	1,540,416	199,710	197,293
Hocking	541,461		461,123		48,876	31,462	
Holmes	666,481		545,661	102,656	18,164		
Jackson	3,432,071		2,353,801	332,794	399,469	26,121	319,886
Jefferson	10,859,448	986,291	7,184,878	682,378	1,669,647	205,521	130,733
Lawrence	2,013,500		1,104,911	536,517	221,870	83,503	66,699
Mahoning	372,582		60,284	169,552	105,467	37,279	
Meigs	33,334,941	19,425,217		2,724,787	9,881,638		1,303,299
Monroe	13,127,763	6,611,426		1,718,556	4,130,833		666,948
Muskingum	16,678,134		4,726,369	4,340,133	5,376,637	1,708,468	526,527
Noble	5,978,631		3,468,652	823,978	1,266,183	315,415	104,403
Perry	1,969,562		1,201,377	73,768	462,613	160,800	71,004
Scioto	1,125,950			508,950	500,000		117,000
Stark	1,300,160		992,921	3,700	206,570	96,651	318
Tuscarawas	8,147,216		5,606,444	1,043,766	1,223,759	228,847	44,400
Vinton	22,948,405	5,729,511	7,035,995	3,546,622	5,705,736	29,300	901,241
Washington	111,029		103,855		7,174		
Wayne	121,169		121,169				
TOTAL	\$181,317,943	\$47,909,643	\$53,360,081	\$22,641,463	\$43,753,793	\$4,672,439	\$8,980,524

¹For those operations reporting activity in more than one county, wage and salary payments were evenly split between the counties involved unless a by-county breakdown was provided by the operator.

²For those operations reporting only a total wage and salary payment to all workers, an equal pay rate was assumed for all employees. In cases where quarterly employment was reported but wage and salary payments were not, wage and salary payments for that quarter were estimated from reported payments in the other quarters to arrive at the annual figure.



Coal miners enjoying a lunch break underground in Hanna Coal Company's Glen Castle No. 6 mine at Harrisville, Short Creek Township, Harrison County, circa 1952. Photo courtesy of Dale Davis.

INDUSTRIAL MINERALS

Industrial minerals, other than mineral fuels, were produced in a total of 87 Ohio counties in 1992. The combined value of all nonfuel industrial minerals sold in 1992 was \$438,880,778.

The average annual employment reported in 1992 for industrial mineral operations was 2,910 production employees and 1,164 nonproduction employees. In 1992, 446 companies produced or sold industrial minerals from 533 operations. Thirty-four of these companies produced more than one mineral commodity at 41 operations.

The multiple-commodity operations employed 219 production workers and 26 nonproduction workers. Ten operations produced clay and shale and employed 30 production workers and 1 nonproduction worker; 3 operations produced limestone and shale and employed 38 production workers and 3 nonproduction workers; 5 operations produced limestone and clay and employed 33 production workers and 4 nonproduction workers; 1 operation produced limestone, clay, and shale and employed 5 production workers only; 3 operations produced sand and gravel and clay and employed 8 production workers and 1 nonproduction worker; 3 operations produced sandstone and sand and gravel and employed 8 production work-

ers and 4 nonproduction workers; 1 operation produced sandstone and clay and employed 51 production workers and 3 nonproduction workers; 4 operations produced sandstone, clay, and shale and employed 17 production workers and 4 nonproduction workers; 1 operation produced sand and gravel and limestone and employed 11 production workers and 1 nonproduction worker; 1 operation produced sand and gravel and peat and employed 2 production workers only; 1 operation produced sand and gravel, sandstone, and clay and employed 1 production worker only; 1 operation produced sand and gravel, clay, and peat and employed 1 production worker only; 2 operations produced limestone, sandstone, clay, and shale and employed 14 production workers and 4 nonproduction workers. The 219 multiple-commodity production employees worked an average of 199 days in 1992. Total wages reported in 1992 for 219 production employees and 26 nonproduction employees at multiple-commodity operations were \$6,231,338. The average annual wage was \$25,434.

The total reported wages for all employees at industrial mineral operations in 1992 were \$117,125,212. The average annual wage, based on those employees for whom wages were reported, was \$28,749.

TABLE 17. — 1992 Value of Ohio industrial minerals

Commodity	Sales (tons)	Change from 1991 (tons)	Value ¹ (dollars)	Percent of total value
Limestone and dolomite	53,141,472	+ 2,894,330	\$196,066,766	44.7
Sand and gravel	44,745,704	+ 1,951,958	151,281,515	34.5
Salt	2,932,494	+ 262,254	43,823,446	10.0
Sandstone and conglomerate	1,855,013	+ 175,501	33,137,598	7.6
Clay	2,509,148	- 112,317	9,256,183	2.1
Shale	2,077,717	+ 238,262	3,177,099	0.7
Gypsum	205,025	+ 5,168	1,947,739	0.4
Peat	17,483	- 1,112	190,432	<0.1
TOTAL	107,484,056	+ 5,414,044	\$438,880,778	100.0

¹The FOB value of industrial minerals sold was estimated for those mines which failed to report this information and for those producing material for captive use. These estimates were calculated using a countywide- or statewide-average price per ton based on reported FOB values.



Plant of the Piqua Stone Products quarry in Miami County, *circa* 1953.
Note railroad cars waiting to be loaded.



Plant of the Ohio and Western Lime Company near Fostoria,
Hancock County, *circa* 1909.

TABLE 18. — 1992 Employment at Ohio industrial mineral operations, by county and commodity

County ¹	Number of employees ²													
	Total		Limestone and dolomite		Sand and gravel		Sandstone and conglomerate		Clay		Shale		Salt	
	Pro-duction	Non-pro-duction	Pro-duction	Non-pro-duction	Pro-duction	Non-pro-duction	Pro-duction	Non-pro-duction	Pro-duction	Non-pro-duction	Pro-duction	Non-pro-duction	Pro-duction	Non-pro-duction
Adams	24	30	24	30							1	1		
Allen	26	3	24	3	2									
Ashland	22	5	21		21	4								
Ashtabula	11	7	11		7				1					
Athens	13	18			8	17								1
Auglaize	20	12	11	5	8	6			1					
Belmont	21	8	10	2	2	4								2
Brown	4													
Butler	74	70			69	70	2		5					
Carroll	10	3			7	3			1				1	
Champaign	19	6			18	5								
Clark	41	19	1	2	40	17								
Clermont	8	5			8	5								
Clinton	20	11	20	11					3					
Columbiana	12	3			4									3
Coshocton	37	22	8	3	12	15	10	4	5					
Crawford	44	0	43		1		1				3	1		
Cuyahoga	103	95												
Darke	10	8	7	3	3	5								
Defiance	1	0			1									
Delaware	45	4	44	4	1									
Erie	115	33	106	31	8 ³	1	1	1						
Fairfield	9	4	6	2	9	4								
Fayette	6	2												
Franklin	164	59	60	12	93	46								1
Fulton	1	1			1	1								
Gallia	5	9			5	9								
Geauga	47	77	13	6	16	5	13	66						
Greene	35	18			35	18								5
Guernsey	5	2	5	2										
Hamilton	62	64			62	64								
Hancock	30	0	30	10										
Hardin	3	10	3								2			
Harrison	2	0												
Henry	4	0			4									
Highland	21	18	21	18										
Hocking	13	0			9	5					1			
Holmes	16	6			10	3			1					
Huron	7	3			6	3	1		2					
Jackson	11	5	4											1
Jefferson	1	1												
Knox	50	24			22	23	28	1						
Lake	69	3			8 ³	3	1							
Lawrence	10	3			4	1					1		1	
Licking	22	15			20	14								2

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between the counties involved unless a by-county breakdown was provided by the operator.

Employment is not included for mines which were owner operated.

This county reported no production or sales of industrial minerals in 1992.

[illegible]

LIMESTONE AND DOLOMITE

Limestone and dolomite were sold or produced by 78 companies at 120 operations in 49 Ohio counties during 1992. Sales of limestone and dolomite totalled 53,141,472 tons; Erie, Franklin, Wyandot, Sandusky, and Ottawa Counties accounted for 40.7 percent of those sales. Reported known production totalled 54,578,997 tons.

Lime produced from Ohio limestone and dolomite totalled 1,496,639 tons in 1992 and came from five operations in Ottawa, Sandusky, and Wyandot Counties. Ohio ranks second nationally in the production of lime, accounting for 10 percent of the nation's annual production. The top five states in descending order of lime production are Missouri, Ohio, Pennsylvania, Alabama, and Kentucky. Ohio ranks eighth in the production of crushed stone, which includes crushed

sandstone, producing 4 percent of the nation's total. The top five states in descending order of production of crushed stone are Pennsylvania, Texas, Illinois, Florida, and Kentucky.⁴

The total value⁵ of limestone and dolomite sold in 1992 was \$196,066,766. Average price per ton was \$3.69.

An annual average of 1,168 employees worked an average of 221 days to produce limestone and dolomite. Total wages reported in 1992 for 1,168 production employees and 366 nonproduction employees were \$47,277,463. The average annual wage, based on those employees for whom wages were reported, was \$30,820. An additional 101 employees mined limestone and dolomite along with one or more other mineral commodities.

Primary uses for crushed and broken limestone and dolomite were road construction/resurfacing and commercial building. Other major uses for various forms of limestone and dolomite included stone for portland cement concrete, riprap, stone for asphaltic concrete, production of lime, portland cement manufacture, and aglime (a noncalcined product).

⁴Preliminary information from U.S. Bureau of Mines.
⁵Includes reported and estimated values. See footnote 1, p. 9.

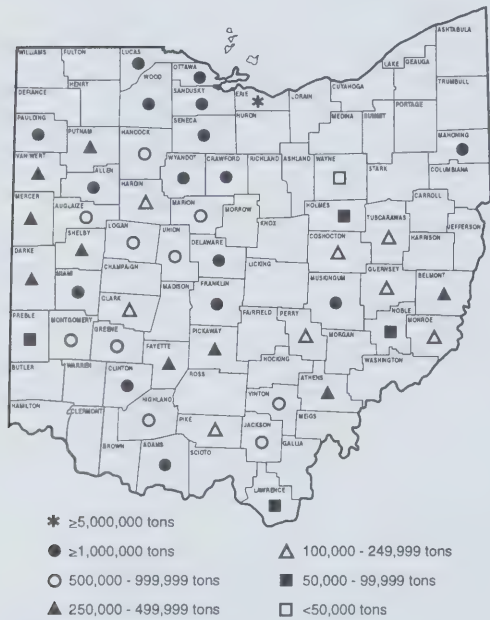


FIGURE 6.—Sales of limestone and dolomite in Ohio in 1992, by county.



FIGURE 7.—Sales and value of limestone and dolomite in Ohio. Value line dashed where data not available.

TABLE 19. — 1992 Production of lime from Ohio stone, by county and type

County	Total tons ¹	Building (tons)	Chemical and industrial (tons)	Refractory (tons)	Other (tons)
Ottawa	91,932	42,833	49,099		
Sandusky	1,292,180		933,264		358,916
Wyandot	112,527		112,527		
TOTAL	1,496,639	42,833	1,094,890	0	358,916

¹Burning produced a 46.0 percent weight loss.

TABLE 20. — 1992 Ohio limestone and dolomite sales, by county and type

County	Tons sold												
	Total all types	Crushed and broken stone							Dimension stone	Stone for portland cement manufacture	Agricultural stone (aglime)	Raw stone for burning	Unspecified/ other
		Total	Riprap	Flux stone	Stone for portland cement concrete	Stone for asphaltic concrete	Road construction/resurfacing	Commercial building					
Adams	1,943,022	1,733,436	215,168	209,585	302,503	110,198	375,443	98,868	209,585	212,086	209,586		
Allen	1,460,483	1,459,964	2,334		30	30,000	54,950	1,106,033	75,440	191,177	519		
Athens	262,645	262,645								282,645			
Auglaize	513,376	511,836	11,834		1,469	98,001	92,683	307,793	56		1,540		
Belmont	300,988	300,988	181,420				105,978	13,590					
Clark	120,281	120,281					120,281			145,531	14,298		2,699
Clinton	1,022,112	1,005,115	40,883		91,989	235,086	93,440	398,186		1,104			
Coshocton	115,906	115,906				35,208	79,594		528	102,718	24,300		
Crawford	1,035,845	1,011,545	11,684	90,015				806,600					
Darke	316,774	316,774					316,774						
Delaware	2,730,932	2,499,655	17,779	1,504			1,085,001	1,394,965					
Erie	5,457,362	5,283,918	155,207		904,690	645,381	2,335,815	571,619	406	580,410	13,758		217,519
Fayette	361,493	320,073					237,694	46,872	90,796	35,507	73,545		99,899
Franklin	4,154,892	4,154,892	1,953				3,723,820	343,901	85,218		41,420		
Greene	718,020	479,957					479,957			238,063			
Guernsey	105,278	105,278					105,278		467,082		2,969		
Hancock	984,705	981,736	2,203				37,178	512,451			7,342		
Hardin	142,413	135,071	880		142,437	28,053	372,678	97,013		142,437	167,576		694
Highland	998,053	829,813	144,208										
Holmes	94,476	94,476					94,476						
Jackson	792,402	770,753					358,391			412,362	21,649		
Lawrence	55,857	55,857	1,200				54,657				63		
Logan	572,297	572,234	23,088	19,492	111,563	66,828	242,050	109,213			98,089		
Lucas	2,327,723	2,229,634	98,087		98,090	56,320	1,351,189	98,089		547,726	31,842		146,151
Mahoning	1,357,916	632,197											
Marion	776,198	760,357	9,672		23,482	37,356	196,454	470,999	21,890	504	15,841		
Mercer	483,454	423,022	60,430	26,646	60,431	60,432	60,432	60,432	60,432	60,433	60,432		334,432
Miami	1,212,573	838,857	5,816		67,463	34,045	648,175			56,712	39,016		55,432
Monroe	102,846	47,414								47,414			
Montgomery	605,405	605,405					584,397		20,373	635			
Muskingum	1,805,497	1,204,774	63,454		63,455	186,128	701,369	63,455	63,457	63,456	63,456		6,333
Noble	89,512	83,179					83,179				3,133	183,864	
Ottawa	3,814,509	3,627,512	169,133	7,544	860,202	153,019	1,723,576	212,169		501,869			
Paulding	1,885,676	766,365	64,002	61,105	61,104	61,105	335,733	61,105	61,105	61,106	61,104		
Perry	230,600	230,600					230,600						
Pickaway	253,751	253,751	7,612		58,364		58,364	96,424		32,987	26,437		
Pike	192,643	166,206	7,473				158,733						
Preble	54,684	50,513	7,218				43,258			37		4,171	
Putnam	258,346	258,346			46,207		211,566						
Sandusky	4,089,330	1,550,090	1,341,596	37,117	10,120		124,099	11,100		26,058	166,799	2,372,441	
Seneca	1,502,162	1,355,260	20,812		3,620	28,097	1,291,143	11,588		5,521	141,381		
Shelby	462,999	462,999	52,631				345,694	63,778	383	513			511,038
Tuscarawas	153,243	153,243	4,505				123,202			25,536			
Union	724,404	188,948	1,274		11,024	6,982	98,786			25,536	24,418		
Van Wert	487,367	487,367	47,513		81,390	78,669	138,254	29,715	1,000	110,826			353,230
Vinton	520,685	167,455								167,455			
Wayne	6,650	6,650					6,650				95,647		249,027
Wood	1,388,707	1,044,033	162,165		159,949	159,948	402,021	1,836,116	102,621	159,950	165,473	215,280	
Wyandot	4,094,950	3,714,197	81,127	575,293	228,644	288,626	376,208			225,562			
TOTAL	53,141,472	44,430,577	3,014,934	1,028,301	3,388,226	2,497,571	19,659,220	8,822,074	1,260,372	4,579,879	1,571,633	2,771,585	1,976,454

SAND AND GRAVEL

Sand and gravel were sold or produced by 254 companies at 324 operations in 66 Ohio counties during 1992. Sales⁶ of sand and gravel totalled 44,745,704 tons; sand accounted for 21,931,101 tons of the total and gravel accounted for 22,814,603 tons. Hamilton, Franklin, Butler, Portage, and Tuscarawas Counties led in sales, accounting for 42.3 percent of the total. Reported known production⁶ of sand and gravel totalled 45,916,298 tons in 1992. Ohio ranks third nationally in the production of construction sand and gravel, accounting for 5 percent of the nation's annual production. The top five

states in descending order of production are California, Colorado, Ohio, Michigan, and Texas.⁷

A total of 155,887 tons of sand were dredged from Lake Erie in 1992. No gravel was dredged from the lake in 1992. The Maumee Bay and Maumee River areas are no longer producing sand or gravel.

The total value⁸ of sand and gravel sold in 1992 was \$151,281,515. Average price per ton was \$3.38.

An annual average of 1,128 employees worked an average of 181 days in 1992 to produce sand and gravel. Total wages of \$43,494,715 were reported for 1,128 production employees and 566 nonproduction employees. The average annual wage, based on those employees for whom wages were reported, was \$25,676. An additional 31 employees mined sand and gravel along with one or more other mineral commodities.

Road construction/resurfacing, building, asphaltic concrete, and portland cement concrete were the major uses for Ohio sand and gravel in 1992.

⁶Please note—Sales and production figures for sand and gravel include material dredged from Lake Erie.

⁷Preliminary information from U.S. Bureau of Mines.

⁸Includes reported and estimated values. See footnote 1, p. 9.

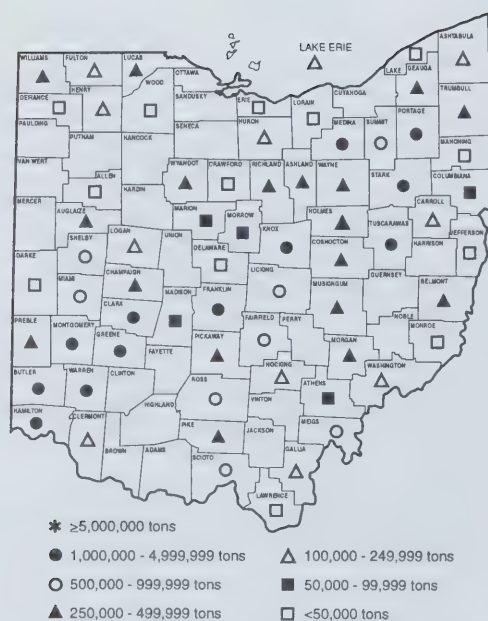


FIGURE 8.—Sales of sand and gravel in Ohio in 1992, by county.



FIGURE 9.—Sales and value of sand and gravel in Ohio. Value line dashed where data not available. Figures from 1984 to 1992 include Lake Erie dredged material.



Olen Corporation's Columbus Plant in Franklin County. Top photo is view of elevators used to distribute different-sized material. Bottom photo shows teachers collecting various rock types from piles of glacial material waiting to be processed. Photos taken during the 1993 Ohio's Mineral Industries Teachers Workshop.

Tons sold

County	Tons sold															
	Total sand and gravel	Total sand	Total gravel	Building		Portland cement concrete		Asphaltic concrete		Road construction/resurfacing		Filtration		Foundry sand	Other/unspecified	
				Sand	Gravel	Sand	Gravel	Sand	Gravel	Sand	Gravel	Sand	Gravel		Sand	Gravel
Allen	46,369	40,047	6,322	18,379	3,255			11,482		74,334	100,327	28,565	2,773		16,148	294
Ashland	260,347	108,861	151,486	27,753											23,406	
Ashtabula	204,248	110,938	93,310	6,229	34,613	12,377		6,878				742	3,053		84,712	55,644
Athens	94,177	49,069	45,108	18,301	18,032	12,754	7,556	15,554	11,947	2,460	7,573				148,473	
Auglaize	277,891	166,060	11,831	114,457		51,603	111,831								32,603	
Belmont	291,922	172,655	119,267					67,843	45,109		7,593				53,314	21,306
Buier	4,133,999	1,725,458	2,408,541	105,206	443,247	51,498	45,259	21,762		1,244,604	1,604,598				325,161	317,634
Butler	231,658	130,206	101,452							33,041	36,564				97,165	64,888
Carrroll	473,342	130,848	342,494	5,031	59,883	93,214				93,214	134,138				32,603	
Champaign	1,953,353	736,238	1,217,115	33,108	86,578	122,277	159,174	320,262	189,919	260,591	523,350				258,094	
Clark	155,981	98,925	57,056												98,925	57,056
Clermont	88,041	45,702	42,339												45,702	42,339
Columbiana	322,143	148,181	173,962	6,432	12,548	32,442	24,332	64,684	69,880	39,657	42,701	204	475		4,762	24,026
Coshocton	1,048	524													524	
Crawford	34,202	16,983	17,219												16,983	17,219
Darke	4,569	0	4,569								4,569					
Defiance	3,460	0	3,460											1,036	20,768	3,460
Delaware	21,960	21,804	156												156	
Erie	605,988	392,495	213,473	108,010	118,676	169,797		106,403	92,759						8,285	2,038
Fairfield	4,274,661	1,813,239	2,461,422	327,540	1,046,057	536,659	211,171	361,700	338,996	462,340	740,198				125,000	125,000
Franklin	160,691	160,691	0	134,065											26,626	
Fulton	108,562	108,412	170												108,412	170
Gallia	427,005	279,276	147,729	144,730	77,238	99,202				19,842	5,707	843	54,491		14,659	10,293
Geauga	2,007,744	714,623	1,293,121	48,952	278,568	44,133	75,186	21,213	19,410	367,818	628,936				232,507	291,021
Greene	4,772,317	2,122,197	2,650,120	439,691	621,262	119,598	38,155	160,968	122,031	1,123,939	1,742,755	4,004	1,564	237	273,760	124,353
Hamilton	157,410	148,041	9,369					148,041	9,369							
Henry	162,585	80,100	82,485												80,100	80,100
Hocking	366,363	152,900	213,463	2,895	12,616	41,772	113,331	88,061	10,932		2,385		20,150		20,172	21,619
Holmes	127,789	106,140	21,649	5,301	13,861	81,197		6,445			2,939	2,830	376		10,367	4,473
Huron	28	14	14	14	14											
Jefferson	1,119,329	493,905	625,424	6,007	61,315	75,888	53,215	98,629	120,965	11,794	56,984				301,587	332,945
Knox	27,000	22,000	5,000			17,263					5,000				4,737	
Lake	32,908	32,908	0	2,200											30,708	
Lawrence	809,549	345,291	464,258	102,318	153,989	23,220	9,400	93,700	42,480	120,387	244,419				5,666	13,970
Licking	214,849	140,501	74,348	14,811	17	55,203				652		14,462			55,373	74,331
Logan																
Lorain	960	960	0	960												
Lucas	363,546	346,081	17,465	186,044											160,037	17,465
Madison	69,068	8,559	60,529	40,337											8,539	20,192
Mahoning	38,986	7,558	31,428	3,780	15,586											
Marion	90,479	71,345	19,134	41,447			80	8,447	85			3,778	15,586		2,128	18,969
Medina	1,075,856	643,885	432,171	127,973	151,704										36,408	
Meigs	790,730	413,099	377,631	17,374	92,771			286,315	16,483	212,989	263,984				9,360	9,918
Miami	706,970	262,969	444,001	36,006	112,874			385,834	228,892	531	34,145		11,905		77,917	116,645
Monroe	24,527	12,264	12,263							149,046	214,482				12,264	12,263
Montgomery	1,684,570	559,366	1,125,204	64,508	125,726	151,559	205,731	79,350	75,945	145,348	212,322		9,919		118,601	495,561

SANDSTONE AND CONGLOMERATE

Sandstone and conglomerate were sold or produced by 26 companies at 34 operations in 21 Ohio counties during 1992. Sales totalled 1,855,013 tons; Geauga, Perry, Ross, Knox, and Tuscarawas Counties accounted for 84.8 percent of that total. Crushed sandstone and conglomerate accounted for 1,814,553 tons, and dimension stone accounted for 40,460 tons of the total sales. Reported known production of sandstone and conglomerate was 2,008,277 tons in 1992. Ohio ranks 11th nationally in the production of dimension stone, accounting for 3 percent of the nation's annual production. The top five states in descending order of production are Indiana, Georgia,

Vermont, Massachusetts, and Texas.⁹ National standings for crushed stone are included under Limestone and Dolomite.

The total value¹⁰ of sandstone and conglomerate sold in 1992 was \$33,137,598. Average price per ton was \$18.80 for crushed stone and \$24.44 for dimension stone.

An annual average of 92 employees worked an average of 128 days in 1992 to produce sandstone and conglomerate. Total wages earned in 1992 for 92 production employees and 83 nonproduction employees were \$5,478,345. The average annual wage, based on those employees for whom wages were reported, was \$31,305. An additional 91 employees mined sandstone and conglomerate along with one or more other mineral commodities.

Crushed stone was used primarily for glass sand, foundry sand, aggregate, and metallurgical pebble. Dimension stone was used primarily for rough construction purposes, finished stone, and rubble.

⁹Preliminary information from U.S. Bureau of Mines.

¹⁰Includes reported and estimated values. See footnote 1, p. 09.

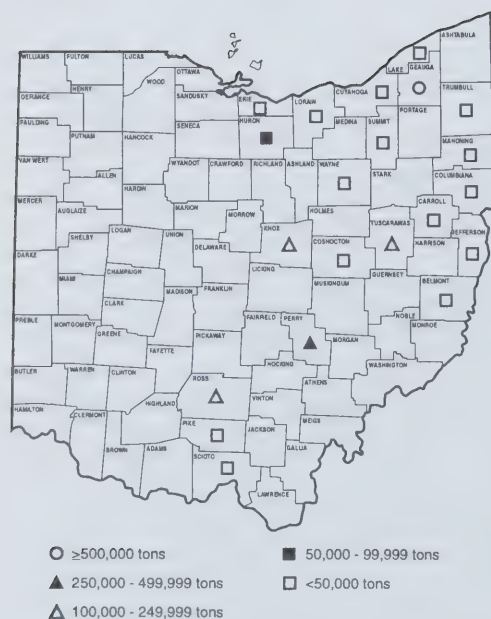


FIGURE 10.—Sales of sandstone and conglomerate in Ohio in 1992, by county.

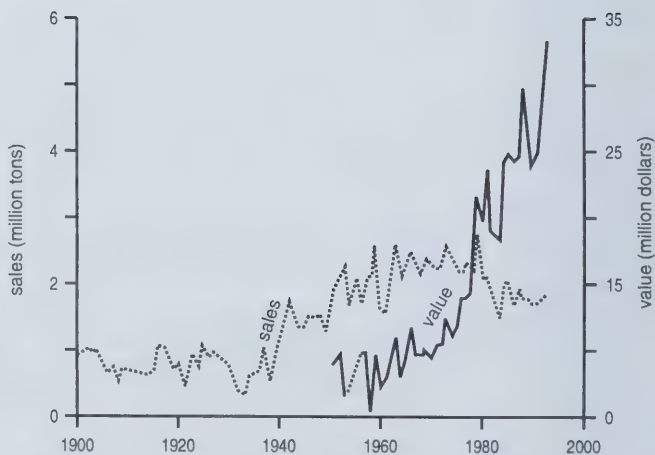


FIGURE 11.—Sales and value of sandstone and conglomerate. Value line dashed where data not available.

TABLE 23. — 1992 Ohio sales of crushed sandstone and conglomerate, by county and type

County	Tons sold													
	Total	Foundry sand	Glass sand	Metallurgical pebble	Refractory	Riprap	Aggregate	Silica flour	Polishing/grinding sand	Fire and furnace sand	Engine sand	Frac sand	Construction	Other/unspecified
Belmont	5,045	680				4,365								
Columbiana	32,023						21,903							10,120
Cuyahoga	1,100					100							1,000	
Geauga	777,385	110,998	142,793	87,329	10,522	20	107,628		36,481	21,350	13,531	13,938	37,937	194,858
Huron	51,213					51,213								
Jefferson	3,867					3,867								
Knox	173,461	40,368	68,136					42,569			5,063	3,717	13,250	358
Lake	40,602													40,602
Lorain	1,693					1,693								
Mahoning	7,961													7,961
Perry	286,523	20,555	155,364					88,361						22,243
Pike	28,255	5,776		16,637						5,842				
Ross	205,187	58,967	59,348		21,848						19,594			45,430
Summit	22,921						22,921							
Trumbull	16,614						8,389						8,225	
Tuscarawas	130,142					1,638				16,785			714	111,005
Wayne	30,561													30,561
TOTAL	1,814,553	237,344	425,641	103,966	32,370	62,896	160,841	130,930	36,481	43,977	38,188	17,655	61,126	463,138

TABLE 24. — 1992 Ohio sales of dimension sandstone and conglomerate, by county and type

County	Tons sold									
	Total	Refractory	Rough construction	Rubble	Grindstones	Rough architectural	Finished	Curbing	Flagging	Other/unspecified
Carroll	14,175		14,175							
Coshocton	14,963		14,963							
Erie	257					257				
Lorain	2,404	8		923	14	19	1,240		200	
Scioto	8,661		8,661							
TOTAL	40,460	8	37,779	923	14	276	1,240	0	200	0

CLAY

Clay was sold or produced by 39 companies at 51 operations in 25 Ohio counties during 1992. Clay sales (including material for captive use) totaled 2,509,148 tons; Tuscarawas, Stark, Paulding, Ross, and Lucas Counties accounted for 76.6 percent of the total sales. Ohio ranks second nationally in the production of clay and shale, accounting for 8 percent of the nation's annual production. The top five states in descending order of production are Texas, Ohio, North Carolina, Michi-

gan, and Alabama.¹¹ Reported known production of clay was 2,523,168 tons. The total value¹² of clay sold (including material for captive use) in 1992 was \$9,256,183. Average price per ton was \$3.69.

An annual average of 89 employees worked an average of 76 days in 1992 mining clay. Total wages reported in 1992 for 89 production employees and 15 nonproduction employees were \$2,093,517. The average annual wage, based on those employees for whom wages were reported, was \$20,130. An additional 160 employees mined clay along with one or more other mineral commodities.

Clay mined in Ohio in 1992 was largely for captive use in the landfill industry, production of common clay products, for construction, and for cement manufacture.

¹¹Preliminary information from U.S. Bureau of Mines.

¹²Includes reported and estimated values. See footnote 1, p. 09.

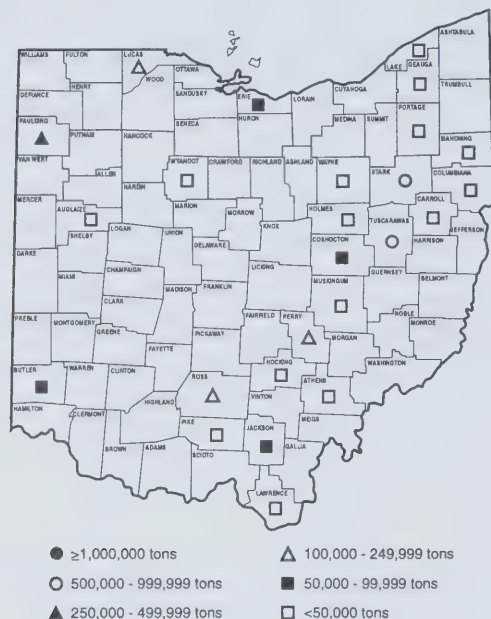


FIGURE 12.—Clay sales in Ohio in 1992, by county.

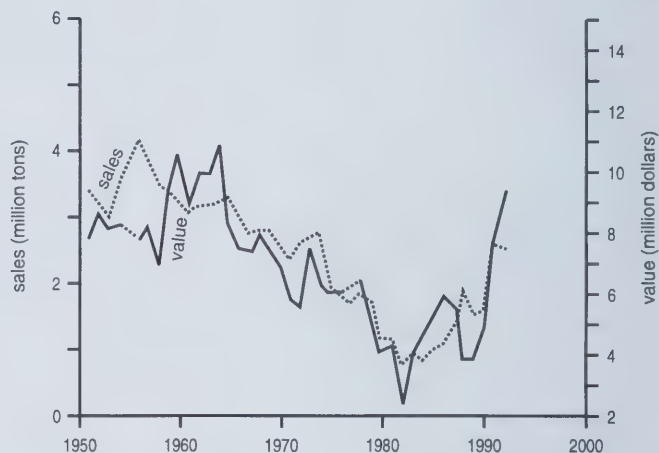


FIGURE 13.—Sales and value of clay in Ohio. Value line dashed where data not available.

TABLE 25. — 1992 Ohio clay sales, by county and type

County	Tons sold								
	Total	Common clay products	Glazed ware	Vitrified products	Cement manufacture	Refractories	Construction	Landfill use	Other/unspecified
Athens	1,350								1,350
Auglaize	2,537	2,537							
Butler	93,267								93,267
Carroll	1,400					1,400			
Columbiana	12,421	12,421							
Coshocton	61,477	15,177					46,300		
Erie	55,800								55,800
Geauga	415								415
Hocking	33,945			33,945					
Holmes	39,302	39,302							
Lake	2,618							2,618	
Jackson	58,112	50,582				7,530			
Lawrence	4,082	4,082							
Lucas	196,705							196,705	
Mahoning	2,997						2,937		60
Muskingum	33,135	14,815		18,320					
Paulding	300,781				300,781				
Perry	116,487	57,619					58,868		
Pike	1,952								1,952
Portage	2,303								2,303
Ross	219,000							219,000	
Stark	558,069	48,837						509,232	
Tuscarawas	647,834	312,723		44,617		48,674	241,820		
Wayne	48,177	177							48,000
Wyandot	14,982	14,982							
TOTAL	2,509,148	573,254	0	96,882	300,781	57,604	349,925	927,555	203,147

SHALE

Shale was sold or produced by 25 companies at 33 operations in 20 Ohio counties during 1992. Shale sales (including material for captive use) totalled 2,077,717 tons; Tuscarawas, Belmont, Stark, Cuyahoga, and Marion Counties accounted for 78.8 percent of the total sales. Reported known production of shale was 2,087,990 tons. National standings for shale production are included under Clay. The total value¹³ of shale

¹³Includes reported and estimated values. See footnote 1, p. 9.

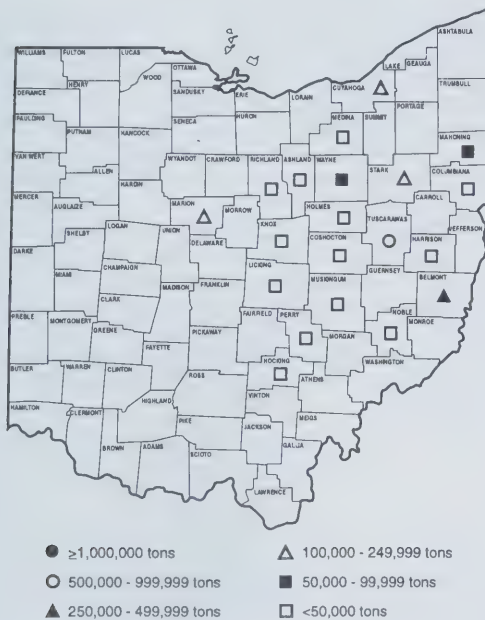


FIGURE 14.—Shale sales in Ohio in 1992, by county.

sold (including material for captive use) in 1992 was \$3,177,099. Average price per ton was \$1.53.

An annual average of 26 employees worked an average of 136 days in 1992 mining shale. Total wages reported in 1992 for 26 production employees and 6 nonproduction employees were \$499,964. The average annual wage, based on those employees for whom wages were reported, was \$15,624. An additional 104 employees mined shale along with one or more other mineral commodities.

Shale mined in Ohio in 1992 was largely for captive use in construction, the production of common clay products, the landfill industry, for lightweight aggregate, and cement manufacture.

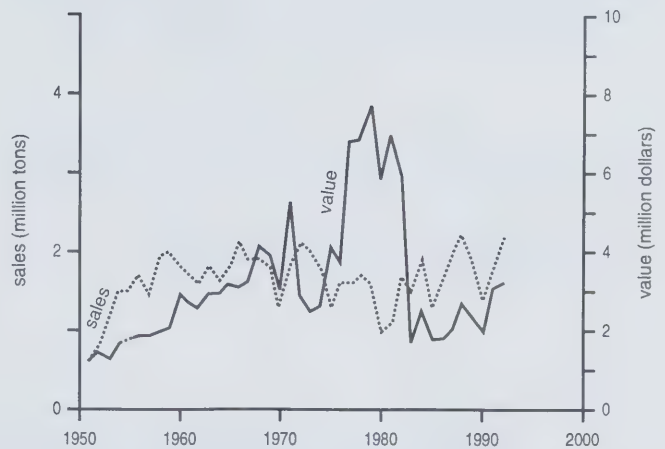


FIGURE 15.—Sales and value of shale in Ohio. Value line dashed where data not available.

TABLE 26. — 1992 Ohio shale sales, by county and type

County	Tons sold							
	Total	Common clay products	Vitrified products	Cement manufacture	Lightweight aggregate	Construction	Landfill use	Other/unspecified
Ashland	1,244	1,244						
Belmont	303,260					303,260		
Columbiana	42,108	38,622	3,486					
Coshocton	19,371	19,371						
Cuyahoga	197,710				197,710			
Harrison	26,598		26,598					
Hocking	22,192	5,500	16,692					
Holmes	31,085	31,085						
Knox	4,352							4,352
Licking	17,388		17,388					
Mahoning	98,356			98,356				
Marion	162,246	162,246						
Medina	48,062	48,062						
Muskingum	24,944	1,630		23,314				
Noble	1,650	1,650						
Perry	23,980	23,980						
Richland	6,260	6,260						
Stark	236,266	5,085					231,181	
Tuscarawas	737,084	281,775	2,508			332,401		120,400
Wayne	73,561							73,561
TOTAL	2,077,717	626,510	66,672	121,670	197,710	635,661	231,181	198,313

SALT

Salt was produced by 3 companies at 5 operations in 5 Ohio counties during 1992. Rock salt sales totalled 2,202,505 tons from 2 underground mines, one each in Cuyahoga and Lake Counties. Three brining operations, one each in Licking, Summit, and Wayne Counties, sold a total of 9,619 tons of salt in brine and 720,370 tons of evaporated salt. Total sales of salt in 1992 amounted to 2,932,494 tons; total value¹⁴ was \$43,823,446. Average price per ton for all salt sold in 1992 was \$14.94. Average price per ton of rock salt was \$15.21 and of salt in brine and evaporated salt was \$14.15. Reported known production of salt was 3,275,870 tons in 1992. Ohio is the sixth-largest salt-producing state in the nation, following Louisiana, Texas, New York, Utah, and Kansas.¹⁵

An annual average of 174 employees worked an average of 307 days in 1992 to produce salt. Total wages in 1992 for 174 production employees and 99 nonproduction employees were \$11,584,541. The average annual wage in 1992 was \$42,434. The primary use for Ohio salt in 1992 was ice control. Salt was also used as an additive in animal feed, for cattle blocks, and as a commercial and residential water-softening agent.

GYPSUM

Gypsum was produced by 1 company at 1 operation in Ottawa County during 1992. Gypsum production and sales

¹⁴Includes reported and estimated values. See footnote 1, p. 9.

¹⁵Preliminary information from U.S. Bureau of Mines.

¹⁶Includes estimated values only. See footnote 1, p. 9.

totalled 205,025 tons. All material was for captive use. The reported value¹⁶ of the gypsum sold was \$1,947,739. Average price per ton was \$9.50. Ohio ranks 15th nationally in gypsum production. The top five states in descending order of production are Oklahoma, Iowa, Michigan, Texas, and California.¹⁵

An annual average of 13 employees worked 274 days in 1992 producing gypsum. Total wages reported in 1992 for 13 production employees and 2 nonproduction employees were \$465,329. The average annual wage in 1992 was \$31,022. The sole use of gypsum from this operation is for the manufacture of wallboard.

PEAT

Peat was produced by 4 companies at 4 operations in 3 Ohio counties during 1992. Peat sales (including material for captive use) totalled 17,483 tons. Champaign, Portage, and Williams Counties accounted for 100 percent of the total sales. The total value of the peat sold in 1992 was \$190,432. Average price per ton was \$10.89. Reported known production was 18,764 tons. Ohio ranks 12th nationally in the production of peat. The top five states in descending order of production are Michigan, Florida, Colorado, Illinois, and Minnesota.¹⁵

An annual average of 1 employee produced peat in 1992. Wages were not reported for the 1 production employee and 1 nonproduction employee that were reported. Two additional employees produced peat along with one or more other mineral commodities. Most peat operations are owner operated. Therefore, reported employment information is limited.

Peat produced in Ohio was used for mulch, soil mix, and worm culture.

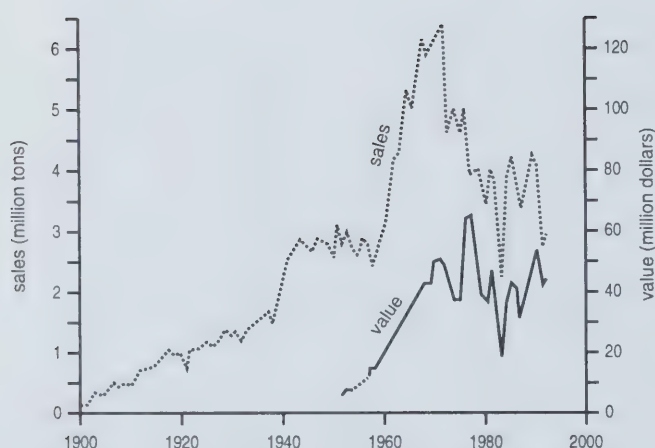


FIGURE 16.—Sales and value of salt in Ohio. Value line dashed where data not available.

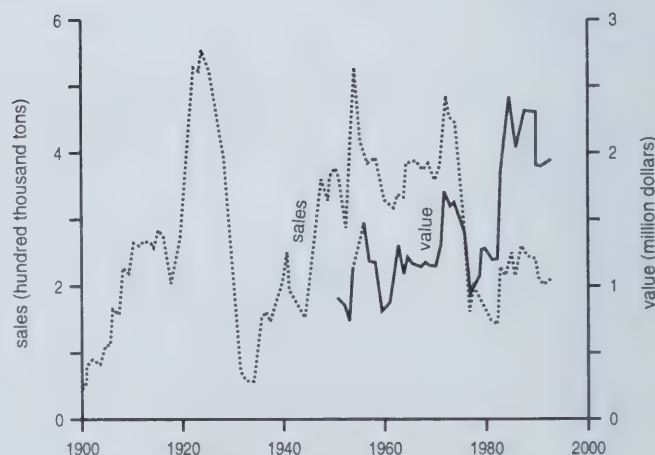


FIGURE 17.—Sales and value of gypsum in Ohio. Value line dashed where data not available. Some figures were calculated because actual figures were not reported in order to maintain confidentiality.

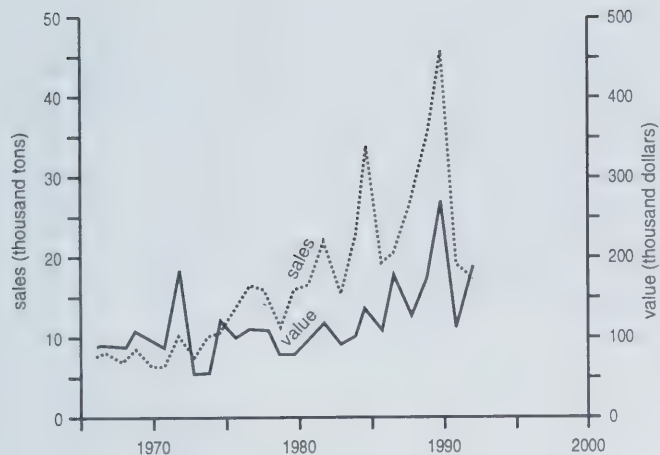


FIGURE 18.—Sales and value of peat in Ohio.

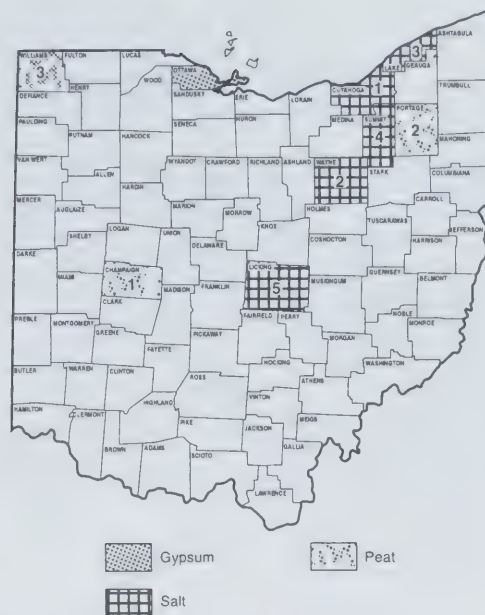


FIGURE 19.—Counties producing salt, gypsum, and peat in Ohio in 1992, and their ranking in sales.

Oil derricks of the Bremen pool in Rush Creek Township, Fairfield County, *circa* 1909. This pool was the first important "Clinton" sand pool in Ohio.

OIL AND GAS

This information is summarized from M. P. McCormac, 1993, 1992 Ohio oil and gas developments: Ohio Department of Natural Resources, Division of Oil and Gas

The Division of Oil and Gas issued 1,185 drilling permits for oil and gas in 1992; the Division estimates that 857 wells were actually drilled in 1992. Wells were drilled in 45 of Ohio's 88 counties. The top five counties for number of new wells drilled in 1992 were Washington, Morgan, Holmes, Portage, and Muskingum. The Division of Oil and Gas received 748 well completion reports; 609 wells were productive and 139 were dry holes for a completion rate of 81.4 percent.

The total reported crude oil production in Ohio in 1992 was 9,196,711 barrels, a 0.4 percent increase from 1991. Through 1992, Ohio wells have produced 1,019,885,427 barrels of crude oil. The dollar value of crude oil produced in Ohio in 1992 was \$174,466,178, a decrease of 2.9 percent. Average price per barrel in 1992 was \$18.70, a 4.6 percent decrease from the

1991 price.

Natural gas production in Ohio in 1992 was 144,815,438 MCF, a 0.3 percent increase from 1991. (Note: the gas production figure for 1991 was corrected to 144,373,377 MCF, which is 3,213,225 MCF less than was reported here in 1991). This production figure includes an estimated 1,433,816 MCF of gas used on the lease. The dollar value of natural gas produced in Ohio in 1992 was \$336,670,913, a decrease of 1.5 percent from 1991. The value of the estimated volume of gas used on the lease was not used in computing this value. The average price per MCF in 1992 was \$2.35, a 1.3 percent decrease from 1991.

The combined total value of Ohio oil and gas production in 1992 was \$511,137,092, a decrease of 2.0 percent from 1991 and the lowest market value since 1979.

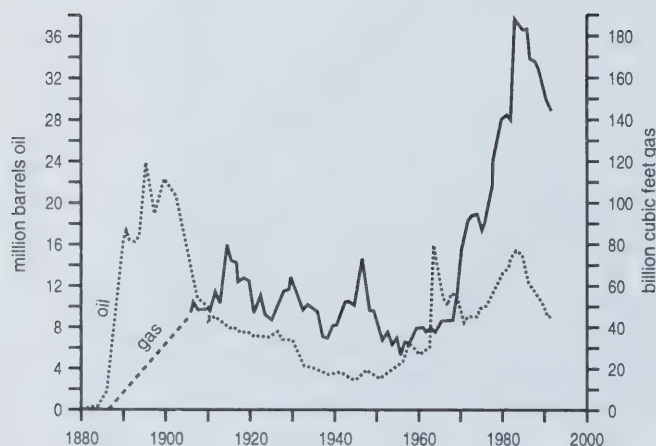


FIGURE 20.—Production of oil and gas in Ohio.

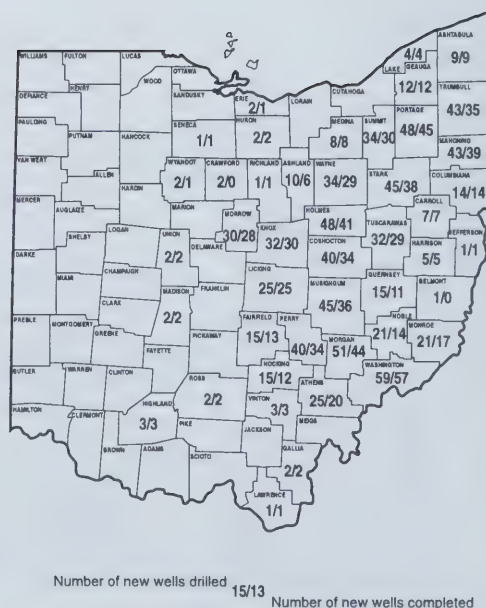


FIGURE 21.—New wells drilled for oil and gas in 1992, by county.

TABLE 27. — 1992 Ohio summary of new oil and gas well completions by county

County ^{1,2}	Development wells		Exploratory wells		Total wells	Percent productive	Drilled footage		
	Productive	Dry	Productive	Dry			Productive	Dry	Total
Ashland	2	1	0	3	6	33.33	1,305	9,946	11,251
Ashtabula	9	0	0	0	9	100.00	32,455	0	32,455
Athens	18	2	0	0	20	90.00	63,159	422	63,581
Carroll	7	0	0	0	7	100.00	37,584	0	37,584
Columbiana	12	0	1	1	14	92.86	76,559	1,208	77,767
Coshocton	16	4	7	7	34	67.65	118,452	74,458	192,910
Erie	0	0	0	1	1	0.00	0	4,020	4,020
Fairfield	7	4	2	0	13	69.23	12,597	2,788	15,385
Gallia	2	0	0	0	2	100.00	3,599	0	3,599
Geauga	12	0	0	0	12	100.00	46,108	0	46,108
Guernsey	10	1	0	0	11	90.91	50,081	1,215	51,296
Harrison	4	0	0	1	5	80.00	24,165	1,369	25,534
Highland	0	0	1	2	3	33.33	3,299	6,724	10,023
Hocking	8	0	3	1	12	91.67	35,674	3,786	39,460
Holmes	23	12	2	4	41	60.98	135,696	95,475	231,171
Huron	0	0	0	2	2	0.00	0	7,733	7,733
Jefferson	1	0	0	0	1	100.00	1,435	0	1,435
Knox	23	1	0	6	30	76.67	66,241	28,703	94,944
Lake	4	0	0	0	4	100.00	13,799	0	13,799
Lawrence	0	0	0	1	1	0.00	0	644	644
Licking	12	5	2	6	25	56.00	36,858	46,967	83,825
Madison	0	0	0	2	2	0.00	0	6,331	6,331
Mahoning	38	1	0	0	39	97.44	213,688	491	214,179
Medina	7	0	1	0	8	100.00	22,930	0	22,930
Monroe	17	0	0	0	17	100.00	43,768	0	43,768
Morgan	41	1	1	1	44	95.45	128,382	11,147	139,529
Morrow	9	15	2	2	28	39.29	24,290	60,963	85,253
Muskingum	19	2	6	9	36	69.44	119,440	64,693	184,133
Noble	14	0	0	0	14	100.00	59,506	0	59,506
Perry	31	0	2	1	34	97.06	81,200	5,010	86,210
Portage	42	0	2	1	45	97.78	232,627	7,242	239,869
Richland	0	1	0	0	1	0.00	0	3,938	3,938
Ross	0	0	0	2	2	0.00	0	6,815	6,815
Seneca	0	0	0	1	1	0.00	0	2,675	2,675
Stark	37	1	0	0	38	97.37	175,876	6,738	182,614
Summit	29	1	0	0	30	96.67	115,895	3,428	119,323
Trumbull	35	0	0	0	35	100.00	167,668	0	167,668
Tuscarawas	18	3	2	6	29	68.97	91,097	48,037	139,134
Union	0	0	0	2	2	0.00	0	5,215	5,215
Vinton	3	0	0	0	3	100.00	3,975	0	3,975
Washington	46	9	0	2	57	80.70	150,482	15,961	166,443
Wayne	15	5	4	5	29	65.52	89,613	52,542	142,155
Wyandot	0	0	0	1	1	0.00	0	2,455	2,455
TOTAL	571	69	38	70	748	81.42	2,479,503	589,139	3,068,642

¹No wells were drilled in the following counties in 1992: Adams, Allen, Auglaize, Brown, Butler, Champaign, Clark, Clermont, Clinton, Cuyahoga, Darke, Defiance, Delaware, Fayette, Franklin, Fulton, Greene, Hamilton, Hancock, Hardin, Henry, Jackson, Logan, Lorain, Lucas, Marion, Meigs, Mercer, Miami, Montgomery, Ottawa, Paulding, Pickaway, Pike, Preble, Putnam, Sandusky, Scioto, Shelby, Van Wert, Warren, Williams, and Wood.

²No well completion information was reported for the following counties in 1992: Belmont, Crawford.

TABLE 28. — 1992 Ohio summary of new oil and gas well completions by producing zone

Producing zone	No. of producing wells	No. of dry holes	Total no. of wells	Total footage	Percent productive
Pennsylvania undifferentiated	17	11	28	26,753	60.71
Lower Mississippian "1st & 2nd Berea"	68	14	82	93,301	82.93
Devonian Ohio Shale	41	2	43	90,675	95.35
Silurian "Newburg"	0	1	1	2,020	0.00
"Clinton-Medina"	396	6	402	1,820,209	98.51
Cambrian-Ordovician Rose Run	65	47	112	690,407	58.04
Cambrian Trempealeau	21	41	62	272,495	33.87
Kerbel-Rome	1	15	16	63,336	6.25
Precambrian	0	2	2	9,446	0.00
TOTAL	609	139	748	3,068,642	81.42

TABLE 29. — Ohio counties¹ and their state mine number abbreviations²

County	Abbreviation	County	Abbreviation	County	Abbreviation
Adams	Ads	Hamilton	Hmn	Noble	Ne
Allen	An	Hancock	Hk	Ottawa	Oa
Ashland	Ald	Hardin	Hdn	Paulding	Pg
Ashtabula	Asa	Harrison	Hn	Perry	Py
Athens	As	Henry	Hy	Pickaway	Pky
Auglaize	Ae	Highland	Hd	Pike	Pke
Belmont	Bt	Hocking	Hg	Portage	Pe
Brown	Bn	Holmes	Hs	Preble	Pre
Butler	Br	Huron	Hrn	Putnam	Pm
Carroll	Cl	Jackson	Jkn	Richland	Rd
Champaign	Cpn	Jefferson	Jfn	Ross	Rs
Clark	Ck	Knox	Kx	Sandusky	Sy
Clermont	Ct	Lake	Lke	Scioto	So
Clinton	Cln	Lawrence	Le	Seneca	Sa
Columbiana	Ca	Licking	Lg	Shelby	Shy
Coshocton	Cn	Logan	Lgn	Stark	Sk
Crawford	Cd	Lorain	Ln	Summit	St
Cuyahoga	Cya	Lucas	Ls	Trumbull	Tl
Darke	Dke	Madison	Mdn	Tuscarawas	Ts
Defiance	De	Mahoning	Mg	Union	Un
Delaware	Del	Marion	Mn	Van Wert	Vt
Erie	Ee	Medina	Ma	Vinton	Vn
Fairfield	Fd	Meigs	Ms	Warren	Wan
Fayette	Fe	Mercer	Mr	Washington	Wn
Franklin	Fn	Miami	Mi	Wayne	We
Fulton	Ftn	Monroe	Me	Williams	Ws
Gallia	Ga	Montgomery	My	Wood	Wd
Geauga	Gea	Morgan	Mon	Wyandot	Wt
Greene	Ge	Morrow	Mw		
Guernsey	Gy	Muskingum	Mum		

¹Brown County reported no production or sales of mineral commodities in 1992.²As used for Division of Mines mine numbers.

1992 OHIO ALPHABETICAL DIRECTORY OF PRODUCING COAL-MINE OPERATORS

For those mines for which the Division of Mines has not assigned a state mine number, a letter designation is used (example: Bt-C).

The designation (u) following the map-location number indicates an underground mine.

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	1992 production (tons)	State mine number	Division of Reclamation permit number
Addington, Inc. 9431 U.S. Rte. 60 Ashland, KY 41102-9527 606-928-3433 Michael Quillen, pres.	Murray City Job (678) Ohio Job #1 (491) Route 50 Job (511) Dundas Job (602) <i>Total mines: 4</i>	Hocking Lawrence Vinton Vinton <i>Total tons:</i>	84,291 227,079 36,862 1,193,792 1,542,024	Hg-331 Le-432 Vn-188 Vn-191	D-0795, D-0946, IM-1188, D-0733, D-0746, D-0915 D-0761 D-0197, D-0867, D-0957, D-1004
American Landfill, Inc. 7916 Chapel St. SE Waynesburg, OH 44688 216-856-8800 Darrell Wilson, pres.	American Landfill, Inc. (631)	Stark	65,054	Sk-246	IM-1114
Anthony Mining Co., Inc. P.O. Box 1298 Steubenville, OH 43952 614-765-4185 Joseph J. Sperlazza, pres.	Pipo #51 (189) Main 307 (190) <i>Total mines: 2</i>	Jefferson Jefferson <i>Total tons:</i>	40,109 34,697 74,806	Jfn-788 Jfn-789	D-0327, D-0983 D-0307
Avis Coal Co. P.O. Box 3373 Zanesville, OH 43702-3373 614-454-2583 James F. Graham, pres.	Avis Coal Co. (663)	Perry	126,647	Py-A	D-0475, D-0931
B & N Coal, Inc. P.O. Box 100 Dexter City, OH 45727 614-783-3575 Gilbert Baker, pres.	Shevlin (495) Pour House (626) Lee (627) Arnold (628) Shilling (493) Ullman (514) <i>Total mines: 6</i>	Noble Noble Noble Noble Noble Noble, Washington <i>Total tons:</i>	36,138 317,096 85,974 70,394 121,894 99,191 730,687	Ne-150 Ne-154 Ne-155 Ne-156 Ne-1008 Ne-151	D-0787 D-0900 D-0958 D-0932 D-0706 D-0807
Bannock Coal Co. P.O. Box 143 Bannock, OH 43972 614-968-3504 Tony Gentile, pres.	Simon (569)	Belmont	26,587	Bt-1189	D-0914
Beaver Creek Resources, Inc. 7219 Salem-Unity Rd. Salem, OH 44460 216-336-3534 Delyte De Yarmon, pres.	Beaver Creek Resources, Inc. (392)	Columbiana	936	Ca-855	IM-891
Belden Brick Co. P.O. Box 910 Canton, OH 44701 216-852-2424 William H. Belden, Jr., pres.	Moomaw Pit (667) Belden (261) Shanesville (634) <i>Total mines: 3</i>	Tuscarawas Tuscarawas Tuscarawas <i>Total tons:</i>	2,494 34,814 3,450 40,758	Ts-1517 Ts-1646 Ts-1939	IM-46 IM-44 IM-47
Benedict, Inc. P.O. Box 315 McArthur, OH 45651 614-596-5226 W. E. Engle, pres.	Mitchell Hollow (357) Waldron Pit (419) Allied West (420) Austin Pit (423) <i>Total mines: 4</i>	Vinton Vinton Vinton Vinton <i>Total tons:</i>	117,402 117,402 117,402 117,403 469,609	Vn-172 Vn-183 Vn-184 Vn-187	D-0445 D-0633 D-0524, D-0609 D-0672
Blum Coal Co. Scio-Carrollton Rd. P.O. Box 232 Carrollton, OH 44615-0232 216-627-2670 Raymond Blum, owner	Minick Job (471)	Columbiana	8,936	Ca-950	D-0768
Boich Mining Co. P.O. Box 148 Bloomingdale, OH 43910 614-282-2116 Abe Bryan, pres.	Boich Mining Co. (178)	Jefferson	360,276	Jfn-528	D-0247, D-0563, D-0665, D-0803, D-0873
Buckeye-Industrial Mining Co. P.O. Box 389 Lisbon, OH 44432 216-337-9511 John C. Grisham, pres.	Lindentree (643) Myers (447) Hohn (606) West Point Mine #8 (608) (u) West Point Mine #7 (574) (u) Mountain Spring Coal Co. #6 (529) (u) Rogers (608) West Point (647) Jefferson County (654) Scott (630)	Carroll Carroll Carroll Columbiana Columbiana Columbiana Columbiana Columbiana Jefferson Stark	71,763 61,308 33,211 47,812 106,757 460,955 123 84,943 44,148 11,312	Cl-222 Cl-238 Cl-247 Ca-509 Ca-977 Ca-978 Ca-850 Ca-987 Jfn-1286 Sk-245	D-0920 D-0703 D-0817 D-0052 D-0851 D-0874 D-0052 D-0928 D-0816, D-0818 D-0653

1992 OHIO ALPHABETICAL DIRECTORY OF PRODUCING COAL-MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	1992 production (tons)	State mine number	Division of Reclamation permit number
Buckeye-Industrial Mining Co. (con't)	Clapper (632) Cable (666) <i>Total mines: 12</i>	Stark Stark <i>Total tons:</i>	17,844 155,568 1,095,744	Sk-247 Sk-249	D-0929 D-0960
Buckingham Mining & Reclamation, Inc. P.O. Box 31 Shawnee, OH 43782-0031 614-394-2644 Gary L. Allen, pres.	Post (497) Roger's Hollow (629) Hazelton Mine (664) Bristol Mine (665) <i>Total mines: 4</i>	Perry Perry Perry Perry <i>Total tons:</i>	15,399 24,078 42,781 2,380 84,638	Py-340 Py-B Py-BM Py-BMR	D-0783, D-0916 D-0940 D-0936, D-0977 D-0980
Butler Resources 4538 Walnut Creek Twn. Rd. 422 Sugarcreek, OH 44681 216-852-2036 Edward J. Butler, owner	Butler Mine (679)	Holmes	4,224	Hs-BR	D-0970
C & E Coal, Inc. Rte. 2 Box 177 Toronto, OH 43964 614-537-1498 Amos L. Rawson, pres.	Miller (609) Applegate (646) <i>Total mines: 2</i>	Columbiana Columbiana <i>Total tons:</i>	68,628 48,290 116,918	Ca-892 Ca-986	D-0419, D-0599, D-0896 D-0975
C L A Coal Co. 4412 Pleasant Valley Rd. SE Dennison, OH 44621 614-922-3954 Cynthia McCartney, pres.	Berresford (649)	Guernsey	20,121	Gy-C	D-0910
Central Ohio Coal Co. P.O. Box 98 Cumberland, OH 43732 614-962-2013 J. E. Katlic, exec. v. pres.	Muskingum Mine (228)	Muskingum, Noble	2,694,297	Ne-41	D-0056, D-0127, D-0261, D-0274, D-0378, D-0420, D-0455, D-0559, D-0678, D-0820, D-0839, IM-921
Commercial Minerals, Inc. 10900 South Ave. P.O. Box 217 North Lima, OH 44452-0217 216-549-2165 W. T. Mackall, pres.	Lisbon (472) Black Road (612) <i>Total mines: 2</i>	Columbiana Columbiana <i>Total tons:</i>	69,407 13,702 83,109	Ca-951 Ca-981	D-0741 D-0941
Consolidation Coal Co. Eastern Region Cadiz, OH 43907 614-942-4335 Samuel Shrader, sr. v. pres., mining	Mahoning Valley #36 (150)	Harrison	797,565	Hn-700	D-0051, D-0054, D-0334, D-0414, D-0452, D-0784, D-0826
Costain Coal, Inc. P.O. Box 729 Gnadenhutzen, OH 44629 614-254-4395 Thomas H. Parker, pres.	Anco Mining, Inc. (534) Costain Coal, Inc. (256) <i>Total mines: 2</i>	Guernsey Tuscarawas <i>Total tons:</i>	60,566 302,706 363,272	Gy-310 Ts-115	D-0842 D-0190, D-0199, D-0217, D-0398, D0533, D-0715, D-0986
Cravat Coal Co. 40580 Cadiz-Piedmont Rd. Cadiz, OH 43907 614-942-4656 Anthony Puskarich, pres.	Stewart/Saffell Pit (605) Newcomertown (615) Hopedale Pit (619) <i>Total mines: 3</i>	Belmont Coshocton Harrison <i>Total tons:</i>	118,433 23,169 36,541 178,143	Bt-C Cn-C Hn-228	D-0961 D-0911 D-0934
Crooksville Coal Co., Inc. P.O. Box 149 Crooksville, OH 43731 614-982-6651 Ralph L. Allen, pres.	Crooksville Strip (239)	Perry	50,310	Py-317	D-0057, D-0085, D-0189, D-0461, D-0615, D-0692, D-0875
D. & D. Mining Co. 3379 E. Garfield Rd. New Springfield, OH 44443 216-549-3127 Donald Thompson, pres.	Saviers Mine (441)	Columbiana	66,540	Ca-348	IM-976, D-1002
D & L Contractors, Inc. P.O. Box 446 Flushing, OH 43977 614-968-4913 Walter Dombroski, pres.	D & L Strip (185) Piney Fork (586) <i>Total mines: 2</i>	Jefferson Jefferson <i>Total tons:</i>	56,290 7,943 64,233	Jfn-780 Jfn-820	D-0126 D-0894
Daron Coal Co., Inc. 3296 Pleasant Valley Rd. SE Dennison, OH 44621 614-922-6829 Ronald Selway, pres.	Pleasant Valley Mine (433) Reed Mine (671) <i>Total mines: 2</i>	Tuscarawas Tuscarawas <i>Total tons:</i>	112,352 20,259 132,611	Ts-1991 Ts-DC	D-0702 D-0954

1992 OHIO ALPHABETICAL DIRECTORY OF PRODUCING COAL-MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	1992 production (tons)	State mine number	Division of Reclamation permit number
Dennis Clay Co. 11123 State Rte. 37 East New Lexington, OH 43764 614-342-5473 Tom L. Dennis, owner	Ohio Power (661) County Rd. 7 Mine (590) <i>Total mines: 2</i>	Muskingum Perry <i>Total tons:</i>	1,597 490 2,087	Mum-903 Py-338	IM-1115 IM-1092
Double "R" Mining 1054 Blackhawk Rd. Beaver Falls, PA 15010 216-424-7609 Raymond L. Barker, pres.	Burt Strip (528)	Columbiana	7,525	Ca-985	D-0821
ENZ, Inc. 3497 University Dr. NE New Philadelphia, OH 44663 216-339-5313 James R. Demuth, pres.	Creighton Pit (246)	Stark	57,581	Sk-208	D-0295, D-0827, D-1005
East Fairfield Coal Co. 10900 South Ave. P.O. Box 217 North Lima, OH 44452-0217 216-549-2165 R. E. Mackall, pres.	"M" Mine (475) Gavers Mine (614)	Columbiana Columbiana	0 ¹ 89,774	Ca-968 Ca-984	D-0760 D-0952
R. A. Eberts Co., Inc. P.O. Box 191 Jackson, OH 45640 614-682-3506 Phil A. Bowman, pres.	Green Pit (418) B. & D. Pit (564) <i>Total mines: 2</i>	Vinton Jackson, Vinton <i>Total tons:</i>	211,054 169,299 380,353	Vn-182 Vn-192	D-0631 D-0207
Elk Coal, Inc. P.O. Box 165 McArthur, OH 45651 614-596-2132 John L. Cline, pres.	Oak Hill (584) Elk Strip (675) <i>Total mines: 2</i>	Jackson Vinton <i>Total tons:</i>	13,892 39,633 53,525	Jkn-1065 Vn-194	D-0887 D-0973
F. & M. Coal Co. Costonia Rd. Box 171 Toronoto, OH 43964 614-544-5203 Edward Fiala, owner	F. & M. Strip (186)	Jefferson	27,006	Jfn-784	D-0091, D-0728
Fairpoint Coal Co. P.O. Box 158 Fairpoint, OH 43927 614-695-3174 Dennis Zaccagnini, pres.	Pogue Run (19)	Belmont	30,320	Bt-927	D-0483
John Glenn Mining Co. 6556 State Route 45 Lisbon, OH 44432 216-424-5945 John Glenn, pres.	Blum Pit (677)	Columbiana	12,951	Ca-980	D-0925
Green Basin Coal, Inc. Route 1, Box 49C Strasburg, OH 44680 216-878-7740 Brian Kohl, pres.	Green Basin Coal, Inc. (668)	Tuscarawas	9,095	Ts-2024	IM-1087
Harrison Mining Corp. P.O. Box 176 Cadiz, OH 43907 614-942-8220 John A. McNab, pres.	Nelms Mine #2 (580) (u)	Harrison	888,232	Hn-710	D-0426
Hocking Valley Mining 36806 Maysville-Greendale Rd. Logan, OH 43138 614-385-6267 Kevin J. Boyle, pres.	Hocking Valley Mining #1 (483)	Hocking	14,753	Hg-324	D-0754
Holmes Limestone Co. P.O. Box 295 Berlin, OH 44610 216-893-2721 Merle Mullet, pres.	Clark (565) 241 Plant (161) Wayne Mines (162) Charm (164) 557 (538) Bolivar Mine (363) Dennison (597) Stone Creek (601)	Coshocton Holmes Holmes, Wayne Holmes Holmes Stark Tuscarawas Tuscarawas	21,888 8,089 10,215 123,070 72,167 11,500 46,572 137,266	Cn-832 Hs-67 Hs-79 Hs-86 Hs-97 Sk-235 Ts-2017 Ts-2023	D-0589, D-0688, D-0856 IM-3, IM-768 IM-656, D-0283, D-0429 D-0193, D-0508, D-0913, D-0942 D-0775, D-0885 IM-945, D-0865 D-0660 D-0796

¹No production, sales only.

1992 OHIO ALPHABETICAL DIRECTORY OF PRODUCING COAL-MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	1992 production (tons)	State mine number	Division of Reclamation permit number
Holmes Limestone Co. (con't)	Clark, Reynolds (670) Clark, Beem (674) <i>Total mines: 10</i>	Tuscarawas Tuscarawas <i>Total tons:</i>	1,786 61,757 494,310	Ts-CR Ts-HLC	D-1001 D-0969
Horizon Coal Corp. 11415 Erie Ave. SW P.O. Box 618 Beach City, OH 44608 216-756-2414 Merle Mullet, pres.	Whitacre-Greer (468) James (673) Slurry Wash Plant (680) <i>Total mines: 3</i>	Carroll Tuscarawas Tuscarawas <i>Total tons:</i>	15,748 159,181 4,172 179,101	Cl-H Ts-H Ts-HC	D-0791 D-0965 D-0981
Huberta Coal Co. P.O. Box 728 Steubenville, OH 43952 614-282-5301 Teresa C. Schiappa, pres.	Rose Valley (326)	Harrison	16,285	Hn-222	D-0587
J D Mining, Inc. 3497 University Dr. NE New Philadelphia, OH 44663 216-339-5313 John R. Demuth, pres.	Ott-Hagloch (375) Craig Pit (562) <i>Total mines: 2</i>	Tuscarawas Tuscarawas <i>Total tons:</i>	47,391 41,477 88,868	Ts-1996 Ts-JD	D-0612 D-0858
James Bros. Coal Co. 190 S. Main St. P.O. Box 425 Magnolia, OH 44643 216-866-9388 Kermit & Richard James, Jr., partners	James Bros. Coal Co. (61) Tunnel Hill (636) <i>Total mines: 2</i>	Carroll Tuscarawas <i>Total tons:</i>	20,426 12,740 33,166	Cl-162 Ts-2028	D-0408 D-0935
Joyce Coal Co., Inc. P.O. Box 264 St. Clairsville, OH 43950 614-782-1330 Mario Posock, pres.	Haas (524) Nemo Pit (656) <i>Total mines: 2</i>	Belmont Jefferson <i>Total tons:</i>	69,243 13,462 82,705	Bt-1184 Jfn-821	D-0799 D-0937
K.C.C.I. P.O. Box 24 Morristown, OH 43759 614-782-1087 George Krulock, pres. ~	Susie Mine (519)	Belmont	48,971	Bt-1179	D-0840
Kimble Clay & Limestone Co. Rte. 1 Box 386 Dover, OH 44622 216-343-1226 Floyd E. Kimble, owner	Kimble Clay & Limestone Co. (262) Kimble Clay & Limestone Co. (598) Kimble Clay & Limestone Co. (600) Kimble Clay & Limestone Co. (509) Kimble Clay & Limestone Co. (638) <i>Total mines: 5</i>	Tuscarawas Tuscarawas Tuscarawas Tuscarawas Tuscarawas <i>Total tons:</i>	37,095 86,487 25,243 3,963 40,035 192,823	Ts-1727 Ts-2019 Ts-2022 Ts-K3 Ts-K4	IM-9 D-0852 D-0878 D-0729 D-0921
King Quarries, Inc. P.O. Box 72 Caldwell, OH 43724 614-732-4185 David King, pres.	Nau (551)	Noble	36,054	Ne-152	D-0859
Krulock, Inc. P.O. Box 300 Morristown, OH 43759 614-635-1738 John Vujnovic, pres.	Emig (617)	Guernsey	42,591	Gy-311	D-0857, D-0989
L & M Mineral Co. 5205 State Rte. 39 Star Rte. Millersburg, OH 44654 216-893-2227 John E. Ling, Jr., pres.	Luikert (267) Spring (411) <i>Total mines: 2</i>	Tuscarawas Tuscarawas <i>Total tons:</i>	9,943 4,577 14,520	Ts-1914 Ts-1982	D-0701 IM-621
Red Malcuit, Inc. 707 S. Wooster Ave. P.O. Box 166 Strasburg, OH 44680-0166 216-878-7114 Mark A. Malcuit, pres.	RMI #3 (556) RMI #2 (510) RMI #1A (640) <i>Total mines: 3</i>	Tuscarawas Tuscarawas Tuscarawas <i>Total tons:</i>	65,195 56,276 9,401 130,872	Ts-2006 Ts-2007 Ts-RM	D-0800 D-0737 D-0904
Marietta Coal Co. 67705 Friends Church Rd. St. Clairsville, OH 43950 614-695-2197 George Nicolozakes, pres.	Borovich-Neitzelt et al. (13) Vannest-Moore et al. (570) Barack-Henthorne et al. (38) Seabright-Bigley et al. (39) Consol (42) Denham-Albaugh et al. (452)	Belmont Belmont Belmont Belmont Belmont Belmont	3 9,106 120,547 10,693 18,618 70,391	Bt-147 Bt-771 Bt-1104 Bt-1105 Bt-1109 Bt-1164	D-0022 D-0771 D-0088 D-0333, D-0734 D-0270, D-0780 D-0742

1992 OHIO ALPHABETICAL DIRECTORY OF PRODUCING COAL-MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	1992 production (tons)	State mine number	Division of Reclamation permit number
Marietta Coal Co. (con't)	Porterfield-Harrison Leasing (523) AT & T (604) <i>Total mines: 8</i>	Belmont Belmont <i>Total tons:</i>	95,152 164,285 488,795	Bt-1183 Bt-AT	D-0845 D-0922
Mesa Coal Corp. P.O. Box 98 Big Prairie, OH 44611 216-496-2931 James R. Small, pres.	Conway (622)	Harrison	8,223	Hn-751	D-0956
Miller Mining, Inc. P.O. Box 525 Sugarcreek, OH 44681 216-852-4511 Raymond O. Miller, pres.	Shrock-Troyer-Miller (506) Mast-Miller et al. (559) Mizer (635) Wright et al. (672) General Clay et al. (637) Swihart (642) <i>Total mines: 6</i>	Tuscarawas Tuscarawas Tuscarawas Tuscarawas Tuscarawas Tuscarawas <i>Total tons:</i>	4,800 133,473 47,228 18,705 197,195 29,721 431,122	Ts-2002 Ts-2010 Ts-2027 Ts-EW Ts-GC Ts-WS	D-0779 D-0849 D-0948 D-0987 D-0967 D-0953
Myers Mining P.O. Box 218 Carrollton, OH 44615 216-739-2009 James L. Myers, owner	Harlem Mine #2 (607) Harlem Mine #3 (644) <i>Total mines: 2</i>	Carroll Carroll <i>Total tons:</i>	36,461 8,952 45,413	Cl-249 Cl-HM	D-0933 D-0992
Northshore Coal, Inc. 100 W. Main St. St. Clairsville, OH 43950 614-695-7237 Charles F. Dawson, pres.	Buckeyeville #7 (648)	Guernsey	26,391	Gy-315	D-0951
Ohio River Collieries, Inc. P.O. Box 128 Bannock, OH 43972 614-968-3504 Tony Gentile, pres.	7400 Pit (27)	Belmont	1,499	Bt-1074	D-0340
Ohio Valley Coal Co. 56854 Pleasant Ridge Rd. Alledonia, OH 43902 216-765-1240 Robert E. Murray, pres.	Powhatan #6 (3) (u)	Belmont	3,436,469	Bt-68	D-0360
Oxford Mining Co. 2313 Cambridge Rd. P.O. Box 427 Coshocton, OH 43812 614-623-0015 Charles C. Ungurean, pres.	Tri-Mac (575) Shurtz (616) Waters (588) <i>Total mines: 3</i>	Coshocton Coshocton Muskingum <i>Total tons:</i>	39,660 233,714 58,931 332,305	Cn-831 Cn-OX Mum-901	D-0788, D-0853, D-0870 D-0964 D-0898
Penn Eagle Coal Corp. P.O. Box 151 Wellsburg, WV 26070 304-737-0696 Robert M. Stock, pres.	B & S Mine (659)	Jefferson	2,499	Jfn-PE	IM-1162
Puskarich Management, Inc. 104 South Church St. Sherrodsville, OH 44675 614-269-3487 Nick J. Puskarich, pres.	Quaker City Pit (589)	Noble	1,193	Ne-153	D-0819
Quarto Mining Co. Subsidiary of Consolidation Coal Co. 1029 Market St. Clarington, OH 43915 614-458-2016 Ben Statler, v. pres.	Powhatan #4 (215) (u)	Monroe	1,461,650	Me-4	D-0433, D-0422
R & F Coal Co. 538 North Main St. Cadiz, OH 43907 614-942-2186 Bill Meister, pres.	Meigs-Phillips (456) NCR 10 (572) Dudek-Bannock (568) Watson-Huhn (314) Bartolec South/Courtwright (124) Bartolec North-Adjacent (123) Taylor (398) Hathaway-Isleta (442) Porcher Area (532) Wolf-Isleta (577) Tasa (399) Sally Buffalo (650)	Belmont Belmont Belmont Belmont, Guernsey Coshocton Coshocton Coshocton Coshocton Coshocton Coshocton Coshocton Harrison, Jefferson Harrison	88,055 14,122 701,601 285,021 64,061 62,810 55,244 21,654 22,903 661,140 112,934 37,319	Bt-1168 Bt-1185 Bt-1188 Gy-304 Cn-768 Cn-779 Cn-820 Cn-HI Cn-PA Cn-RF Hn-225 Hn-753	D-0619 D-0862, D-0955 D-0908 D-0262 D-0208 D-0320 D-0623 D-0673 D-0850 D-0689 D-5093 D-0991

1992 OHIO ALPHABETICAL DIRECTORY OF PRODUCING COAL-MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	1992 production (tons)	State mine number	Division of Reclamation permit number
R & F Coal Co. (con't)	Arrowhead (544) Friendship Park (658) Polen II (545) Long-LaFever (550) DeLong-Wilsterman (508) <i>Total mines: 18</i>	Jefferson Jefferson Jefferson Noble Tuscarawas	52,121 189,911 412,722 8,133 47,064 <i>Total tons: 2,889,354</i>	Jfn-817 Jfn-824 Jfn-P2 Ne-147 Ts-DW	D-0860 D-0564, D-0995 D-0798 D-0453 D-0792
R & R Minerals, Inc. 7360 Skyview Rd. Millersburg, OH 44654 216-674-4926 Gary R. Ross, pres.	Adams (578)	Coshocton	20,192	Cn-RR	D-0872
R. T. G., Inc. P.O. Box 250 Byesville, OH 43723 614-439-4399 James E. Rossiter, pres.	R. T. G. #7 (618)	Guernsey	145,129	Gy-313	D-0907
Rash Energy, Inc. 3114 U.S. Route 62 Dundee, OH 44624 216-359-5909 Freeman Mullet, pres.	Rash Energy, Inc. (676)	Wayne	6,868	We-R	IM-690
Regal Mining, Inc. 3333 Perron Rd. SE Carrollton, OH 44615 216-739-6596 Daniel J. Smith, pres.	Camp Ecco (360) Selway (526) Copeland (573) Walters (645) <i>Total mines: 4</i>	Carroll Carroll Carroll Carroll	20,902 20,416 14,015 46,771 <i>Total tons: 102,104</i>	Cl-233 Cl-244 Cl-248 Cl-W	D-0628 D-0814 D-0902 D-0979
Saginaw Mining Co. 1100 Superior Ave. Cleveland, OH 44114-2598 216-861-3300 R. D. Thompson, pres.	Saginaw Mine (16) (u)	Belmont	230,098	Bt-643	D-0328
Sands Hill Coal Co., Inc. 1203 N. Pennsylvania Ave. Wellston, OH 45692 614-384-5659 Jack Huffman, pres.	Walton (651) Sands Hill Strip #5 (623) Hiram West (653) Sands Hill Strip #4 (541) Sands Hill Strip #3 (513) <i>Total mines: 5</i>	Jackson Jackson Jackson Jackson, Vinton Vinton	17,755 230,657 3,444 238,800 204,648 <i>Total tons: 695,304</i>	Jkn-1066 Jkn-1069 Jkn-1071 Jkn-SH Vn-S	D-0808 D-0944 D-1003 D-0861, IM-1068 D-0793
Sands Mining Corp. 3445 Adamsville Rd. P.O. Box 2848 Zanesville, OH 43701 614-454-6863 Gene Sands, pres.	Montgomery Pit (587)	Muskingum	107,093	Mum-900	D-0281, D-0882
Schiappa Coal Co., Inc. P.O. Box 728 Steubenville, OH 43952 614-282-5301 Teresa C. Schiappa, pres.	Reilly Strip (567)	Belmont	20,519	Bt-1186	D-0877
Solomon's Mines, Inc. 7732 Salem-Unity Rd. Salem, OH 44460 216-337-0123 Jack Solomon, pres.	Solomon's Mines, Inc. (660)	Mahoning	2,680	Mg-632	IM-808
Southern Ohio Coal Co. P.O. Box 490 Athens, OH 45701 614-286-5051 J. E. Katlic, exec. v. pres.	Meigs Mine #31 (212, 300) (u) Meigs Mine #2 (213) (u) <i>Total mines: 2</i>	Meigs, Vinton Meigs	2,565,423 2,636,236 <i>Total tons: 5,201,659</i>	Ms-293 Ms-294	D-0354, D-0463 D-0355
Sterling Mining Co. 10900 South Ave. P.O. Box 217 North Lima, OH 44452 216-549-2165 W. Thomas MacKall, pres.	Sterling North (657) (u)	Jefferson	156,775	Jfn-823	D-0949
Stewart Coal Co. Lake Alma Rd. Wellston, OH 45692 614-286-4696 William F. Stewart, pres.	Stewart Mine (539) Dark Hollow (652) <i>Total mines: 2</i>	Jackson Jackson	40,005 28,633 <i>Total tons: 68,638</i>	Jkn-1064 Jkn-1070	D-0659, D-0732, D-0891, D-0844, D-0884 D-0997

1992 OHIO ALPHABETICAL DIRECTORY OF PRODUCING COAL-MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	1992 production (tons)	State mine number	Division of Reclamation permit number
Thompson Bros. Mining Co. 3379 E. Garfield Rd. New Springfield, OH 44443 216-549-3979 J. E. Thompson, pres.	Peres Mine (205)	Mahoning	4,872	Mg-65	D-0374
Valley Coal Corp. P.O. Box 148 Union Furnace, OH 43158 304-773-5531 Velma G. Zuspan, pres.	Boyle Pit (330)	Hocking	9,529	Hg-321	D-0531
Valley Mining, Inc. 4412 Pleasant Valley Rd. SE Dennison, OH 44621 614-922-3942 Mary J. Brown, pres.	Smith (582) York (489) Statewide RDF (633) Heddeston (555) Lattavo (560) Gibson (595) Taylor (669)	Harrison Jefferson Stark Tuscarawas Tuscarawas Tuscarawas Tuscarawas	136,041 165,215 3,115 7,848 28,867 4,914 31,494	Hn-750 Jfn-813 Sk-WM Ts-2005 Ts-2011 Ts-2014 Ts-2034	D-0901 D-0740 IM-1122 D-0769 D-0822 D-0868 D-0516
	<i>Total mines: 7</i>	<i>Total tons:</i>	377,494		
Varkony Mining Co. P.O. Box 427 Hopedale, OH 43976 614-937-2777 Stephen & John Varkony, Jr., owners	Varkony Mining Co. (146)	Harrison	56,365	Hn-217	D-0440
W. B. Coal Co., Inc. R.D. 1 Box 40 Bloomington, OH 43910 614-282-6503 Wayne Boich, pres.	McGinness Bros. Strip (144) McGinness Bros. Strip (655) <i>Total mines: 2</i>	Harrison Jefferson	73,597 54,190 <i>Total tons: 127,787</i>	Hn-738 Jfn-815	D-0376 D-0135
Waste Management of Ohio, Inc. dba Countywide RDF 3619 Gracemont St. SW East Sparta, OH 44626 216-874-3855 Greg A. Terwilliger, site mgr.	Countywide RDF (248)	Stark	9,893	Sk-217	D-0938, IM-750
Waterloo Coal Co., Inc. P.O. Box 626 Jackson, OH 45640 614-682-7787 Phil A. Bowman, v. pres.	Bowman Strip (165)	Jackson	617,788	Jkn-367	IM-774, D-0205, D-0273, D-0285, D-0286, D-0594, D-0926, D-0968
Weirton Construction Co. 401 Pennsylvania Ave. Weirton, WV 26062 304-748-1400 Donald R. Donell, pres.	#19 (180)	Jefferson	143,036	Jfn-687	D-0404, D-0939
Frank Widmor Coal Co. P.O. Box 176 Blaine, OH 43909 614-635-4811 Frank Widmor, owner	Frank Widmor Coal Co. (603)	Belmont	38,589	Bt-1190	IM-1089
Zimnox Coal Co. 1211 Third St. Brilliant, OH 43913 614-598-4111 Dennis Zimnox, v. pres.	Zimnox #4 (181)	Jefferson	2,617	Jfn-703	D-0112, D-0194, D-0736, D-0843
Zoar Mining Co. P.O. Box 550 Zoar, OH 44697 216-874-2434 David W. Johnson, pres.	Zoar Mining Co. (258)	Tuscarawas	1,608	Ts-540	IM-28

1992 OHIO DIRECTORY OF COAL-PREPARATION PLANTS AND ASSOCIATED FACILITIES, BY COUNTY

For those mines for which the Division of Mines has not assigned a state mine number, a letter designation is used (example: Bt-C).

County	Name, address, telephone number, and president/owner/manager of company	Name of plant (and map location number for coal-preparation plants)	Township	State mine number	Division of Reclamation permit number	Type of facility
Belmont	Consolidation Coal Co. Eastern Region Cadiz, OH 43907 614-942-4335 Samuel Shrader, sr. v. pres., mining	General Services 105	Wheeling	Hn-5		general services
	Cravat Coal Co. 40580 Cadiz-Piedmont Rd. Cadiz, OH 43907 614-942-4656 Anthony Puskarich, pres.	Bellaire River Dock Holloway Tipple	Pultney Flushing	Bt-876 Bt-963	D-0687 D-0763	loading dock tipple
	K. C. C. I. P.O. Box 24 Morristown, OH 43759 614-782-1087 George Krulock, pres.	Susie Tipple	Wheeling	Bt-1179	D-0840	tipple
	Marietta Coal Co. 67705 Friends Church Rd. St. Clairsville, OH 43950 614-695-2197 George Nicolozakes, pres.	Marietta Coal Co. (3)	Pultney	Bt-936	D-0216	loading dock, prep plant — jig, flotation, centrifugal dryer, crushers, screens
	Ohio River Collieries, Inc. P.O. Box 128 Bannock, OH 43972 614-968-3504 Tony Gentile, pres.	Amber Tipple Lafferty Tipple Lafferty Truck Shop	Union Union Union	Bt-844 Bt-947 Bt-1093	D-0773 D-0773 D-0773	tipple tipple shop
	Ohio Valley Coal Co. 56854 Pleasant Ridge Rd. Alledonia, OH 43902 216-765-1240 Robert E. Murray, pres.	Powhatan #6 (4)	Smith, Washington	Bt-68	D-0360	prep plant — jigs, cyclones, centrifuges, thickeners, filters, screens
	Quarto Mining Co. (subsidiary of Consolidation Coal Co.) 1029 Market St. P.O. Box 231 Clarington, OH 43915 614-458-2016 Ben Statler, v. pres.	Central Shop	York	Bt-1000		central shop
	R & F Coal Co. 538 North Main St. Cadiz, OH 43907 614-942-9269 Bill Meister, pres.	Lamira Preparation Plant (1)	Smith	Bt-108	D-0146	prep plant — heavy-media washers, cyclone, centrifuges, thickeners, filters, crushers, breakers, screens
	Rayle River Coal 67705 Friends Church Rd. St. Clairsville, OH 43950 614-695-2197 George Nicolozakes, pres.	Bellaire River Dock Rayle River Terminal	City of Bellaire Pultney	Bt-832 Bt-1191		dock coal transfer facility
Carroll	Conotton Valley Quarries, Inc. P.O. Box 187 Sherrodsville, OH 44675 614-269-3481 Nick J. Puskarich, pres.	Sherrodsville Tipple	Orange	Cl-C	D-0707	tipple
	James Bros. Coal Co. 190 S. Main St. P.O. Box 425 Magnolia, OH 44643 216-866-9388 Kermit & Richard James, Jr., partners	James Bros. Tipple	Rose	Cl-17	D-0705	tipple
Columbiana	Buckeye-Industrial Mining Co. P.O. Box 389 Lisbon, OH 44432 216-337-9511 John C. Grisham, pres.	Kensington Preparation Plant (5) Gavers Preparation Plant (29)	West Wayne	Ca-879 Ca-932	D-0806 D-0532	prep plant — heavy-media washer, cyclone, centrifuges, breaker prep plant — Jeffrey jig system

**1992 OHIO DIRECTORY OF COAL-PREPARATION PLANTS AND
ASSOCIATED FACILITIES, BY COUNTY – Continued**

County	Name, address, telephone number, and president/owner/manager of company	Name of plant (and map location number for coal-preparation plants)	Township	State mine number	Division of Reclamation permit number	Type of facility
Columbiana (con't)	C & E Coal, Inc. Route 2 Box 177 Toronto, OH 43964 614-537-1498 Amos L. Rawson, pres.	C & E Coal, Inc. (6)	Madison	Ca-892	D-0599	tipple, prep plant — crushers, screens
	Johnson Mining Co. 39150 Churchill Rd. Lisbon, OH 44432 216-424-3742 Robert A. Johnson, owner	Johnson Tipple	Elk Run, Madison	Ca-922	D-0666	tipple
Coshocton	Conesville Coal Preparation Co. 14561 Twp. Rd. 263 Conesville, OH 43811 614-687-3209 J. E. Katlic, exec. v. pres.	Conesville Coal Preparation Co. (7)	Franklin	Cn-810		prep plant — jig, cyclones, froth cells, flotation, filter press, screens, dryers
	Oxford Mining Co. 2313 Cambridge Rd. P.O. Box 427 Coshocton, OH 43812 614-623-0015 Charles C. Ungurean, pres.	Lori Tipple	Franklin	Cn-736	D-0671	tipple
	R & F Coal Co. 538 North Main St. Cadiz, OH 43907 614-942-9250 Bill Meister, pres.	Barb Tipple	Franklin	Cn-748	D-0661	tipple
	Sugarcreek Clay & Limestone Co. P.O. Box 402 Sugarcreek, OH 44681 216-852-4440 Daniel D. Miller, pres.	Sugarcreek Tipple	Crawford	Cn-836	D-0801	tipple
Gallia	Barrick Gold Exploration, Inc. 3405 Rocky Fork Rd. Crown City, OH 45623 614-256-6327 David L. Jamison, pres.	Crown City Prep Plant (31)	Guyan	Ga-220	D-0201	prep plant — jig, cyclones, screens, conveyors, crushers, pumps, slurry ponds, loader
	LaMay Industries, Inc. P.O. Box 626 Jackson, OH 45640 614-682-7787 Phil A. Bowman, v. pres.	Waterloo River Dock	Addison	Ga-229	D-0725	dock, tipple
	Mack Energy Co. P.O. Box 148 Union Furnace, OH 43158-0148 614-385-8521 Michael B. McCort, pres.	Mack River Tipple	Clay	Ga-236		dock, tipple
	Sands Hill Coal Co., Inc. 1203 N. Pennsylvania Ave. Wellston, OH 45692 614-384-5659 Jack Huffman, pres.	Sands Hill Coal Co., Inc.	Addison	Ga-183	D-0834	tipple
Harrison	Consolidation Coal Co. Eastern Region Cadiz, OH 43907 614-942-4335 Samuel Shrader, sr. v. pres., mining	Georgetown Preparation Plant (8)	Cadiz	Hn-212	D-0192	prep plant — jigs, flotation, cyclones, centrifuges, filters, crushers, breaker, screens, dryer, picking tables, magnets
	Cravat Coal Co. 40580 Cadiz-Piedmont Rd. Cadiz, OH 43907 614-942-4656 Anthony Puskarich, pres.	22 Shop	Moorefield	Hn-230		shop
	Harrison Processing Corp. 86395 Mine Rd. P.O. Box 250 Hopedale, OH 43976 614-942-8220 John A. McNab, pres.	Nelms Prep Plant (30)	Green	Hn-169	D-0424	prep plant — heavy-media vessel, heavy-media cyclones, spirals, dryers, thickeners, crushers, screens

**1992 OHIO DIRECTORY OF COAL-PREPARATION PLANTS AND
ASSOCIATED FACILITIES, BY COUNTY — Continued**

County	Name, address, telephone number, and president/owner/manager of company	Name of plant (and map location number for coal-preparation plants)	Township	State mine number	Division of Reclamation permit number	Type of facility
Harrison (con't)	R & F Coal Co. 538 North Main St. Cadiz, OH 43907 614-942-9250 Bill Meister, pres.	Machine Shop/Warehouse Cadiz Lab	Cadiz Cadiz	Hn-709 Hn-709C		shop laboratory
Hocking	Mack Energy Co. P.O. Box 148 Union Furnace, OH 43158-0148 614-385-8521 Michael B. McCort, pres.	Mack Energy Tipple	Starr	Hg-M	D-0556	tipple
Jackson	Sands Hill Coal Co., Inc. 1203 N. Pennsylvania Ave. Wellston, OH 45692 614-384-5659 Jack Huffman, pres.	Sands Hill Prep Plant (9)	Milton	Jkn-1055	D-0347	prep plant — heavy-media cyclone, hydrocyclones, screens, dryer, crusher, picking table, magnets
	Stewart Coal Co. Lake Alma Rd. Wellston, OH 45692 614-286-4696 William F. Stewart, pres.	Stewart Tipple	Milton	Jkn-S	D-0659	tipple
	Waterloo Coal Co., Inc. P.O. Box 626 Jackson, OH 45640 614-682-7787 Phil A. Bowman, v. pres.	Bowman Strip (10)	Jefferson, Madison	Jkn-367	D-0285	prep plant — jig, crushers, breaker, screens, dryers, wash tables
Jefferson	Rayland Harbor P.O. Box 2388 Wintersville, OH 43952 614-264-7704 George Krulock, pres.	#40 Dock-Shop-Prep Plant (12)	Warren	Jfn-647	D-0492	dock, shop, prep plant — heavy- media washer, cyclones, crushers, breaker, screens, dryers
	T & T Coal Co. P.O. Box 116 Steubenville, OH 43952 614-282-2066 Mark Teramana, gen. mgr.	T & T Tipple	Island Creek	Jfn-TT		tipple
	W.B. Coal Co., Inc. R.D. 1 Box 40 Bloomingdale, OH 43910 614-282-6503 Wayne Boich, pres.	W.B. Tipple	Cross Creek, Wayne	Jfn-744	D-0665	tipple
Lawrence	Collins Mining Co. Rte. 2 Box 48 Ironton, OH 45638 614-532-9400 O. C. Collins, owner	River Dock	Hamilton	Le-415	D-0777	dock
	Harbour Marine, Inc. P.O. Box 3126 Huntington, WV 25702-0126 703-935-7521 James Williamson, v. pres.	Harbour Marine, Inc.	Union	Le-420	D-0662	tipple
	Ironton Coal Co., Inc. 9431 U.S. Rte. 60 Ashland, KY 41102-9527 606-928-3433 Larry Addington, pres.	Ironton Coal Co., Inc.	Upper	Le-439		loading dock
Mahoning	East Fairfield Coal Co. 10900 South Ave. P.O. Box 217 North Lima, OH 44452-0217 216-549-2165 R. E. Mackall, pres.	Tipple Washing & Crushing Plant (13)	Beaver Beaver	Mg-621 Mg-623	D-0214	tipple prep plant — cyclones, centrifuges, thickener, filter, crushers, screens, magnets
	Ted Mesmer & Sons, Inc. 1282 E. South Range Rd. North Lima, OH 44452-9998 216-549-2385 Ted Mesmer, Jr., v. pres.	Mesmer Tipple	Beaver	Mg-59	D-0686	tipple

**1992 OHIO DIRECTORY OF COAL-PREPARATION PLANTS AND
ASSOCIATED FACILITIES, BY COUNTY – Continued**

County	Name, address, telephone number, and president/owner/manager of company	Name of plant (and map location number for coal-preparation plants)	Township	State mine number	Division of Reclamation permit number	Type of facility
Mahoning (con't)	Thompson Bros. Mining Co. 3379 E. Garfield Rd. New Springfield, OH 44443 216-549-3979 J. E. Thompson, owner	Thompson Bros. Mining Co.	Springfield	Mg-588	D-0711	tipple
Meigs	Addington, Inc. 9431 U.S. Rte. 60 Ashland, KY 41102-9527 606-928-3433 Michael Quillen, pres.	Addington Dock #4	Salisbury	Ms-285	D-0698	tipple, dock
	Raven Hocking Coal Corp. P.O. Box 108 Mason, WV 25260 304-773-5531 Velma G. Zuspan, pres.	Raven Dock	Sutton	Ms-307		dock
	Southern Ohio Coal Co. P.O. Box 490 Athens, OH 45701 614-286-5051 J. E. Katlic, exec. v. pres.	Meigs Mine No. 31 (14)	Salem	Ms-293	D-0354	prep plant — heavy-media washers, flotation, cyclones, centrifuges, thickeners, filters, breaker, screens
Monroe	Quarto Mining Co. (subsidiary of Consolidation Coal Co.) 1029 Market St. Clarington, OH 43915 614-458-2016 Ben Statler, v. pres.	Powhatan #4 (15)	Salem	Me-4	D-0422	prep plant — jigs, cyclones, centrifuges, thickeners, filters, crushers
Morgan	Central Ohio Coal Co. P.O. Box 98 Cumberland, OH 43732 614-962-2013 J. E. Katlic, exec. v. pres.	Muskingum Mine (16)	Meigsville	Ne-41	D-0378, D-0420	tipple, prep plant — jigs, flotation, cyclones, thickener, filters, crushers, breakers, screens, magnets
Muskingum	Sands Mining Corp. 3445 Adamsville Rd. P.O. Box 2848 Zanesville, OH 43701 614-454-1483 Gene Sands, pres.	Sands Coal Washing (28)	Washington	Mum-239	D-0428	prep plant — jig, cyclones, crusher, flotation, conveyor
Noble	Knowlton Industries 61779 Sampson Rd. Cambridge, OH 43725 614-638-2100 W. B. Knowlton, Jr., partner	Knowlton Tipple	Brookfield	Ne-KI		tipple
Perry	Crooksville Coal Co., Inc. P.O. Box 149 Crooksville, OH 43731 614-982-6651 Ralph L. Allen, pres.	Crooksville Preparation Plant (18)	Bearfield	Py-317	D-0248	prep plant — jig, flotation, centrifugal dryer, crushers, screens
		Crooksville Tipple	Salt Creek	Py-339	D-0692	tipple
Scioto	Norfolk Southern Railroad 914 Hayport Rd. Wheelersburg, OH 45694 614-574-8491 Charles G. Howard, asst. to mgr.	NS Wheelersburg Terminal	Porter	So-96		dock
	Standard Materials, Inc. P.O. Box 184 Wheelersburg, OH 45694 216-743-3151 C. W. Kelley, asst. sec.	Wheelersburg Dock	Porter	So-92	D-0607	dock
Tuscarawas	Central Fuel Co. County Rd. 55 P.O. Box 165 New Philadelphia, OH 44663 216-339-5049 Keith B. Kimble, gen. mgr.	Central Fuel Co. (20)	York	Ts-1938	D-0264	prep plant — jig, screen, dryers

**1992 OHIO DIRECTORY OF COAL-PREPARATION PLANTS AND
ASSOCIATED FACILITIES, BY COUNTY – Continued**

County	Name, address, telephone number, and president/owner/manager of company	Name of plant (and map location number for coal-preparation plants)	Township	State mine number	Division of Reclamation permit number	Type of facility
Tuscarawas (con't)	Costain Coal, Inc. P.O. Box 729 Gnadenhutten, OH 44629 614-254-4395 Thomas H. Parker, pres.	Costain Coal, Inc. (19)	Clay, Salem	Ts-115	D-0199	prep plant — jig, flotation, cyclones, filters, crushers, screens
	Horizon Coal Corp. 11415 Erie Ave. SW P.O. Box 618 Beach City, OH 44608 216-756-2414 Merle Mullet, pres.	Horizon Coal Wash Plant (21)	Franklin, Lawrence	Ts-1942	D-0287	prep plant — jigs, cyclones, centrifuges, crushers, screens, picking tables
		Slurry Wash Plant (32)	Franklin, Lawrence	Ts-HC	D-0981	prep plant — cyclones
	Miller Mining, Inc. P.O. Box 525 Sugarcreek, OH 44681 216-852-4511 Olen Miller, pres.	Copperhead Tipple	Sugar Creek, Wayne	Ts-MM	D-0652	tipple
		Miller Tipple	Sugar Creek	Ts-MM1	D-0876	tipple
Vinton	Addington, Inc. 9431 U.S. Rte. 60 Ashland, KY 41102-9527 606-928-3433 Michael Quillen, pres.	Addington, Inc. (23)	Clinton	Vn-178	D-0185	prep plant — washers, cyclones, jig, centrifugal dryer, thickener, Diester table, screens, filter, crusher, magnet
	Benedict, Inc. P.O. Box 315 McArthur, OH 45651 614-596-5226 W. E. Engle, pres.	Benedict, Inc. (22)	Swan	Vn-145	D-0159	prep plant — heavy-media washer, cyclone, crusher, conveyors
	Daft Coal Co. P.O. Box 93 McArthur, OH 45651 614-596-4127 Lawrence Daft, pres.	Daft Coal Tipple	Madison	Vn-D		tipple
	Sands Hill Coal Co., Inc. 1203 N. Pennsylvania Ave. Wellston, OH 45692 614-384-5659 Jack Huffman, pres.	Sands Hill Strip (24)	Clinton	Vn-641	D-0309, D-0169	tipple, prep plant — heavy-media washers, flotation, cyclones, centrifuge, crushers, screens, dryer, picking tables, magnets
Wayne	Holmes Limestone Co. P.O. Box 295 Berlin, OH 44610 216-893-2721 Merle Mullet, pres.	Holmes Limestone Preparation Plant (27)	Franklin	Hs-79	D-0283	prep plant — jig, crushers, dryers, screens, conveyors



Top photo: Loaded mine cars en route to the coal tipple of Mine No. 5 of the Murray Company, near Murray City, in Ward Township, Hocking County, and Trimble Township, Athens County. This mine was operated by the Sunday Creek Coal Company until 1938, and under a variety of leases until it was abandoned in 1952.

Bottom photo: Men and hoisting equipment used to dig the 450-foot-deep shaft of the Canaanville No. 1 Mine, at Canaanville, Canaan Township, Athens County. Photos from the Mathaney collection of Alden Library, Ohio University.

1992 OHIO DIRECTORY OF PRODUCING COAL-MINE OPERATORS, BY COUNTY

NOTE: This directory lists only the coal-producing operations. It does not list tipples, loading docks, preparation plants, or other active, nonproducing operations that would contribute to employment and wage statistics presented in tables 10-16. For those mines for which the Division of Mines has not assigned a state mine number, a letter designation is used (example: Bt-C).

SEAM IDENTIFICATION

2	Quakertown	5	Lower Kittanning	7A	Mahoning	12	Washington
3	Lower Mercer	5A	Strasburg	8	Pittsburgh	A	Anderson
3A	Upper Mercer	6	Middle Kittanning	8A	Pomeroy-Redstone	H	Harlem
4	Brookville	6A	Lower Freeport	9	Meigs Creek	W	Winters
4A	Clarion	7	Upper Freeport	11	Waynesburg		

Name of company	Name of mine	Township	Seam	Thick-ness (inches)	Type of mine	Method of production	Tonnage produced in 1992	Days in production in 1992	Disposition		Employment		State mine number	
									Method	Tonnage	Under- ground	Sur- face		
	BELMONT COUNTY — Total production = 5,330,313 tons													
Bannock Coal Co. Cravat Coal Co.	Simon Stewart/Saffell Pit	Colerain York	12 8,8A,9	60	surface surface	strip	26,587	204	truck	26,587		2	1	Bt-1189
						strip auger	117,153 1,280	297	water truck	17,736 100,697		8	<1	Bt-C
					Total	Total	118,433			118,433				
Fairpoint Coal Co. Joyce Coal Co., Inc.	Pogue Run Haas	Richland Richland	8 8	60	surface surface	strip	30,320	22	truck	30,320		9	4	Bt-927
						strip auger	50,568 18,675	96	truck	69,243		6		Bt-1184
					Total	Total	69,243							
K.C.C.I.	Susie Mine	Wheeling	8	52	surface	strip	46,021	119	truck	48,971		6		Bt-1179
						auger	2,950							
					Total	Total	48,971							
Marietta Coal Co.	Seabright-Bigley et al.	Colerain	11 12	36	surface	strip	3,441	30	truck	10,693		22	25	Bt-1105 ¹
						auger	7,252							
					Total	Total	10,693							
AT&T	Kirkwood, Union	8		surface	strip	97,973	157	truck	164,285					Bt-AT
					auger	66,312								
					Total	Total	164,285							
Vannest-Moore et al.	Richland	Richland	11		surface	strip	4,995	8	truck	9,106				Bt-771
						auger	4,111							
					Total	Total	9,106							
Barack-Henthorne et al.	Richland	Richland	11	36	surface	strip	87,315	125	truck	120,547				Bt-1104
						auger	33,232							
					Total	Total	120,547							
Porterfield-Harrison Leasing	Richland	Richland	11		surface	strip	73,450	92	truck	95,152				Bt-1183
						auger	21,702							
					Total	Total	95,152							
Borovich-Neitzelt et al. Denham-Albaugh et al.	Smith Smith	Smith Smith	11 11	44	surface surface	strip	3		truck	3				Bt-147
						strip auger	53,273 17,118	61	truck	70,391				Bt-1164
					Total	Total	70,391							

Consol	Union	8	51	surface	strip auger	8,603 10,015 18,618	9	truck	18,618			Bt-1109
Ohio River Collieries, Inc. Ohio Valley Coal Co.	Union Smith, Washington	9 8	60 62	surface slope	strip longwall cont. miner Total	1,499 2,728,895 707,574 3,436,469	34 299	truck rail water truck Total	1,499 2,846,188 33,652 353,247 3,233,087	1 171	190	Bt-1074 Bt-68
R & F Coal Co.	Goshen, Wayne	9 11	35 24	surface	strip auger Total	85,648 2,407 88,055	116	truck	88,055	10		Bt-1168
Watson-Huhn	Warren	9	42	surface	strip	17,012	143	water truck Total	3,686 12,575 16,261	2	<1	Cy-304 ²
NCR-10	Union, Wheeling	9	36	surface	strip auger Total	12,941 1,181 14,122	47	water truck Total	2,999 10,393 13,392	1	<1	Bt-1185
Dudek-Bannock	Wheeling	9		surface	strip auger Total	692,594 9,007 701,601	292	water truck Total	157,505 530,622 688,127	64	14	Bt-1188
Saginaw Mining Co. Schiappa Coal Co., Inc. Frank Widmor Coal Co.	Richland Warren Pultney	8 9 8 9	60 36 72 42	slope surface surface surface	cont. miner strip strip strip	230,098 20,519 38,589	166 128 251	rail truck truck Total	249,088 20,519 38,589	71 2 2	27	Bt-643 Bt-1186 Bt-1190
CARROLL COUNTY — Total production = 349,973 tons												
Buckeye-Industrial Mining Co.	Rose	6	35	surface	strip auger Total	70,531 1,232 71,763	120	truck	71,763	7	1	Cl-222
Horizon Coal Corp.	Rose Rose Rose	5,6 6 5	36 35 30	surface surface surface	strip strip strip	61,308 33,211 15,748	100 50 60	truck truck truck	61,308 33,211 15,748	7 3 1	1	Cl-238 Cl-247 Cl-H
James Bros. Coal Co. Myers Mining	Rose Lee	6 6 H	30 22 24	surface surface	strip strip auger Total	20,426 31,221 5,240 36,461	40 308	truck truck	20,163 36,461	13 3	8 1	Cl-162 Cl-249
Regal Mining, Inc.	Lee Lee Perry Copeland Walters	H H H H H	24 16 14 16 16	surface surface surface surface surface	strip strip strip strip auger Total	8,952 20,416 20,902 14,015 46,059 712 46,771	96 162 20 15 160	truck truck truck truck truck	8,952 20,416 20,902 12,689 46,771	2 12 4 18		Cl-HM Cl-244 ³ Cl-233 Cl-248 Cl-W
COLUMBIANA COUNTY — Total production = 1,087,279 tons												
Beaver Creek Resources, Inc. Blum Coal Co. Buckeye-Industrial Mining Co.	Salem Center, Wayne Madison	5 6 7.7A	27 25 35	surface surface surface	strip strip strip auger Total	936 8,936 81,504 3,439 84,943	5 129 70	truck truck truck	936 8,936 84,943	1 2 7		Ca-855 Ca-950 Ca-987

¹Employment reported for Bt-1105 is a summary of employment for all Marietta Coal Co. operations.²See also Guernsey County.³Employment reported for Cl-244 includes employment for Cl-233 and Cl-248.

1992 OHIO DIRECTORY OF PRODUCING COAL-MINE OPERATORS, BY COUNTY - Continued

Name of company	Name of mine	Township	Seam	Thick- ness (inches)	Type of mine	Method of production	Tonnage produced in 1992	Days in production in 1992	Disposition		Employment		State mine number
									Method	Tonnage	Production Under- ground	Non- produc- tion Sur- face	
COLUMBIANA COUNTY — (continued)	Mountain Spring Coal Co. #6	Wayne	6A	44	drift	cont. miner	460,955	262	truck	460,955	38	6	Ca-978
	West Point #8 Mine Rogers	West	7	33	drift	cont. miner	47,812	50	truck	47,812	3	1	Ca-509
	West Point Mine #7 Miller	Yellow Creek Center, Elk Run	6	50 36	drift surface	cont. miner strip	123 106,757 61,347 7,281 68,628	2 130 38	truck truck truck	123 106,757 68,628	11 4	2 4	Ca-850 Ca-977 Ca-892
	Applegate	Wayne	6	38	surface	Total strip auger	40,447 7,843 48,290	57	truck	48,290	5	1	Ca-986
	Lisbon	Elk Run	7	20	surface	strip auger Total	61,852 7,555 69,407	144	truck	72,191	9	1	Ca-951
	Black Road	Madison	7	24	surface	strip auger Total	5,234 8,468 13,702	44	truck	14,262	2		Ca-981
	Saviers Mine	Unity	4	30	surface	strip	66,540	270	truck	66,540	7	10	Ca-348
	Burt Strip Gavers Mine	Fairfield Center, Wayne	5 6 7	10 22 36	surface surface	strip strip auger Total	7,525 80,851 8,923 89,774	75 127	truck truck	7,525 91,301	3 11	2 1	Ca-985 Ca-984
	"M" Mine Blum Pit	Salem Madison	8 6	48 28	surface surface	strip strip	0 12,951	0 252	truck truck	3,566 12,951	<1 3		Ca-968 ⁴ Ca-980
	COSHOCTON COUNTY — Total production = 1,226,435 tons												
Cravat Coal Co. Holmes Limestone Co. Oxford Mining Co.	Newcomerstown Clark Tri-Mac	Adams Mill Creek Franklin, Jackson	6 5,6 6	30	surface surface surface	strip strip strip auger Total	23,169 21,888 38,249 1,411 39,660	168 142 50	truck truck truck	23,169 21,888 39,660	4 2 2	1 2 2	Cn-O Cn-832 Cn-831
	Shurtz Taylor	Lafayette Lafayette	6 5 6	30 30	surface surface	strip strip	233,714 55,244	250 147	truck water truck Total	233,714 11,801 39,805 51,606	10 5	5 1	Cn-OX Cn-820
R & F Coal Co.	Bartolec South-Courtwright	Oxford	5 6	30 30	surface	strip auger Total	53,112 10,949 64,061	99	water truck Total	13,225 45,267 58,492	5	1	Cn-768
	Bartolec North-Adjacent	Oxford	5 6	30 30	surface	strip auger Total	50,877 11,933 62,810	276	water truck Total	15,094 50,590 65,684	5	1	Cn-779
Hathaway-Isleta	Oxford	Oxford	5 6	30 30	surface	strip auger Total	17,767 3,887 21,654	175	water truck Total	5,610 18,759 24,369	2	<1	Cn-HI
	Porcher Area	Oxford	6	22	surface	auger	22,903	39	water truck Total	4,573 15,882 20,455	1	1	Cn-PA

R & R Minerals, Inc.	Wolf Isleta	Oxford	5 6	30 30	surface	strip auger Total	655,405 5,735 661,140	292	water truck Total	155,141 523,893 679,034	60	14	Cn-RF	
	Adams	Keene	6	30	surface	strip	20,192	150	truck	20,192	3		Cn-RR	
	GUERNSEY COUNTY — Total production = 562,807 tons													
	Berresford Anco Mining, Inc.	Londonderry Monroe	8 7	60 26	surface surface	strip strip auger Total	20,121 54,785 5,781 60,566	41 254	truck truck	20,121 60,566	3 9	<1 4	Gy-C Gy-310	
	Emig Buckeyeville #7 Watson-Huhn	Center Jackson Millwood	7 7 8,9	54 60	surface surface surface	strip strip strip auger Total	42,591 26,391 195,561 72,448 268,009	172 264 293	truck truck water truck Total	42,591 27,119 59,895 202,716 262,611	10 4 18	3 4	Gy-311 Gy-315 Gy-304 ⁴	
	R. T. G., Inc.	Center	7	66	surface	strip	145,129	135	truck	145,129	13	3	Gy-313	
	HARRISON COUNTY — Total production = 2,130,988 tons													
	Consolidation Coal Co. Cravat Coal Co.	Mahoning Valley #36 Hopedale Pit	Athens Green	8 8	48	surface surface	strip strip	797,565 36,541	173 213	truck water truck Total	797,565 16,517 20,024 36,541	52 4	15 1	Hn-700 Hn-228
	Harrison Mining Corp.	Nelms Mine #2	Green	6A	60	slope	cont. miner	888,232	353	water truck Total	43,137 877,969 921,106	12	12	Hn-710
	Huberta Coal Co.	Rose Valley	Green	8 8A	56 20	surface	strip	16,285	128	truck	16,285	2	1	Hn-222
Mesa Coal Corp. R & F Coal Co.	Conway Sally Buffalo	Monroe Cadiz	7 9	45	surface surface	strip strip strip auger Total	8,223 36,591 728 37,319	20 99	truck water truck Total	8,223 7,958 27,432 35,390	1 7	1	Hn-751 Hn-753	
Valley Mining, Inc.	Tasa	Green, Short Creek	8 8A	59 26	surface	strip	28,281	190	water truck Total	4,685 22,767 27,452	3	1	Hn-225 ⁶	
	Myers North	Short Creek	8 8A	50 13	surface	strip auger Total	4,194 48,345 52,539	95	water truck Total	11,170 38,575 49,745	3	1	Hn-MN	
	Smith	Cadiz	8 8A	50 22	surface	strip auger Total	89,187 46,854 136,041	253	truck	136,041	10	2	Hn-750	
	Varkony Mining Co. W.B. Coal Co., Inc.	Green German	8,8A,9 H	20	surface surface	strip strip	56,365 73,597	171 34	truck truck	56,365 73,597	8 10	1 1	Hn-217 Hn-738	
	HOCKING COUNTY — Total production = 108,573 tons													
Addington, Inc. Hocking Valley Mining	Murray City Job Hocking Valley Mining #1	Ward Ward	6,7 5	36 72	surface surface	strip strip	84,291 14,753	121 246	truck truck	84,291 14,753	10 3	2 1	Hg-331 Hg-324	
Valley Coal Corp.	Boyle Pit	Ward	6A	34	surface	strip	9,529	169	water truck Total	8,854 675 9,529	2	2	Hg-321	

⁴Sales only, no production.
⁵See also Belmont County.
⁶See also Jefferson County.

⁴Sales only, no production.
⁵See also Belmont County.
⁶See also Jefferson County.

1992 OHIO DIRECTORY OF PRODUCING COAL-MINE OPERATORS, BY COUNTY — Continued

Name of company	Name of mine	Township	Seam	Thick- ness (inches)	Type of mine	Method of production	Tonnage produced in 1992	Days in production in 1992	Disposition		Employment			State mine number
									Method	Tonnage	Production		Non- produc- tion	
											Under- ground	Sur- face		
HOLMES COUNTY — Total production = 212,658 tons														
Butler Resources Holmes Limestone Co.	Butler Mine	Walnut Creek	5		surface	strip	4,224	10	truck	4,224		1		Hs-BR
	557	Clark	6	30	surface	strip	72,167	268	truck	72,167		6	<1	Hs-97
	Charm	Clark, Walnut Creek	5,6	30	surface	strip	123,070	274	truck	123,070		6	<1	Hs-86
	241 Plant	Hardy	4	24	surface	strip	8,089	256	truck	8,089		5		Hs-67
	Wayne Mines	Prairie	4	24	surface	strip	5,108	54	truck	5,108		1	4	Hs-797
JACKSON COUNTY — Total production = 1,156,225 tons														
Elk Coal, Inc. R. A. Eberts Co.	Oak Hill	Franklin	4		surface	strip	13,892	119	truck	13,892		2	1	Jkn-1066
	B. & D. Pit	Milton	3	24	surface	strip	84,650	91	truck	72,508		3	2	Vn-192 ^a
			4A	12										
			6		surface	strip	17,755	20	water truck	9,619 8,136				Jkn-1066
	Walton	Coal	2						Total	17,755				
Sands Hill Coal Co., Inc.									water truck	114,650				Jkn-1069
	Sands Hill Strip #5	Milton	4A	42	surface	strip	230,657	250	water truck	116,007				
			5	24					Total	230,657				
			6	16										
			W	12										
	Hiram West	Milton	4A		surface	strip	3,444	10	water truck	1,866 1,578				Jkn-1071
									Total	3,444				
	Sands Hill Strip #4	Milton	4A	40	surface	strip	119,401	134	water truck	58,319 61,082		24		Jkn-SH ^{a,9}
			5	50					Total	119,401				
			6	16										
			W	10										
Stewart Coal Co. Waterloo Coal Co., Inc.	Stewart Mine	Liberty	4A		surface	strip	40,005	196	truck	40,005		11		Jkn-1064
	Dark Hollow	Jackson	3A		surface	strip	28,633	66	truck	28,633		15		Jkn-1070
	Bowman Strip	Bloomfield, Madison	4A	48	surface	strip	617,788	283	truck	518,772		23	36	Jkn-367
			5	34										
			5A											
			6											
			7											
JEFFERSON COUNTY — Total production = 1,847,670 tons														
Anthony Mining Co., Inc.	Pipe #51	Knox, Saline	8	40	surface	strip auger	36,760 3,349	229	truck	40,109		6	3	Jfn-788
						Total	40,109							
					surface	strip auger	31,963 2,734	127	truck	34,697		7	2	Jfn-789
						Total	34,697							
Boich Mining Co. Buckeye-Industrial Mining Co. D & L Contractors, Inc.	Boich Mining Co.	Cross Creek	8	56	surface	strip	360,276	178	truck	360,276		32	26	Jfn-528
	Jefferson County	Smithfield	6A,7	35	surface	strip	44,148	70	truck	44,148		7	1	Jfn-1286
	D & L Strip	Smithfield	8	56	surface	strip	56,290	94	truck	56,290		7	3	Jfn-780
			8A	18										
	Piney Fork	Smithfield	9											
			8	18	surface	strip	7,943	45	truck	7,943		1	<1	Jfn-820

F. & M. Coal Co. Joyce Coal Co., Inc. Penn Eagle Coal Corp. R & F Coal Co.	F. & M. Strip Nemo Pit B & S Mine Tasa	Wayne Warren Saline Smithfield	8	54	surface	strip	27,006	40	truck	27,006		4	Jfn-784
			8		surface	strip	13,462	12	truck	13,462		2	Jfn-821
			6	25	surface	strip	2,499	10	truck	2,499		1	Jfn-PE
			8	59	surface	strip	82,575	293	water	19,311		7	Hn-225 ¹⁰
			8A	26	surface	auger	2,078		truck	64,619			
					Total		84,653		Total	83,930			
			8		surface	strip	149,727	220	water	43,099		15	Jfn-824
			8A		surface	auger	40,184		truck	143,760			
			9		Total		189,911		Total	186,859			
			8	50	surface	strip	43,181	144	water	11,501		4	Jfn-817
Sterling Mining Co. Valley Mining, Inc.	Arrowhead	Wayne	8A	16	surface	auger	8,940		truck	39,286			
					Total		52,121		Total	50,787			
			8	50	surface	strip	380,822	292	water	61,121		35	Jfn-P2
			8A	16	surface	auger	31,900		truck	348,457			
			9	12	Total		412,722		Total	409,578			
			7	36	drift	cont. miner	156,775	154	truck	156,775	29		Jfn-823
			8	60	surface	strip	164,292	257	truck	165,215		14	Jfn-813
			8A	22	surface	auger	923						
					Total		165,215						
			H	18	surface	strip	54,190	37	truck	54,190		6	Jfn-815
W. B. Coal Co., Inc. Weirton Construction Co.	McGinness Bros. Strip #19	Salem Wells	8	54	surface	strip	130,993	240	truck	142,516		25	Jfn-687
					surface	auger	12,043						
					Total		143,036						
			8	25	surface	strip	2,617	1	truck	2,617		1	Jfn-703
			4A	30	surface	strip	227,079	206	truck	227,079		30	Le-432
			5	30									
			6										
Solomon's Mines, Inc. Thompson Bros. Mining Co.	Solomon's Mines, Inc. Peres Mine	Green Beaver	3A,5	36	surface	strip	2,680	10	truck	2,680		1	Mg-632
			4	30	surface	strip	4,872	49	truck	4,872		1	Mg-65
Southern Ohio Coal Co.	Meigs Mine #2	Columbia	4A	57	shaft	longwall cont. miner	2,189,478	253	conveyor	2,639,658	304	114	Ms-294
					Total		446,758						
							2,636,236						
			4A	57	shaft	longwall cont. miner	1,080,962	126	conveyor	1,283,987	123	143	Ms-293 ⁸
					Total		201,751						
							1,282,713						
Quarto Mining Co. (subsidiary of Consolidation Coal Co.)	Powhatan #4	Salem	8	60	shaft	longwall cont. miner	1,153,164	227	water	1,318,156	153	113	Me-4
					Total		308,486						
							1,461,650						

⁷See also Wayne County.

⁸See also Vinton County.

⁹Employment reported for Jkn-SH includes employment for Jkn-1066.

Jkn-1069, and Jkn-1071.

¹⁰See also Harrison County.

LAWRENCE COUNTY — Total production = 227,079 tons

MAHONING COUNTY — Total production = 7,552 tons

MEIGS COUNTY — Total production = 3,918,949 tons

MONROE COUNTY — Total production = 1,461,650 tons

1992 OHIO DIRECTORY OF PRODUCING COAL-MINE OPERATORS, BY COUNTY — Continued

Name of company	Name of mine	Township	Seam	Thick- ness (inches)	Type of mine	Method of production	Tonnage produced in 1992	Days in production in 1992	Disposition		Employment		State mine number					
									Method	Tonnage	Production	Non- produc- tion						
Central Ohio Coal Co.	MUSKINGUM COUNTY — Total production = 2,412,803 tons																	
	Muskingum Mine	Meigs	9	41	surface	strip auger Total	2,176,731 68,451 2,245,182	172	truck conveyor Total	157	164	Ne-41 ¹¹						
	Ohio Power Waters	Newton Monroe	5 6	18	surface	strip strip auger Total	1,597 23,598 35,333 58,931	10 90	truck truck	1 5	2	Mum-903 Mum-901						
	Montgomery Pit	Washington	5 6	30 30	surface	strip auger Total	88,714 18,379 107,093	143	truck	13	5	Mum-900						
Central Ohio Coal Co.	NOBLE COUNTY — Total production = 1,195,606 tons																	
	Shevlin Lee	Elk	9	30	surface	strip	36,138	196	truck	4	1	Ne-150						
	Ullman	Elk	9	30	surface	strip	85,974	255	truck	6	1	Ne-155						
	Shilling	Jefferson	9	30	surface	strip	69,615	195	truck	6	1	Ne-151 ¹²						
	Jefferson	Jefferson	9	30	surface	strip	121,894	255	truck	8	1	Ne-1008						
	Arnold	Jefferson	9	30	surface	strip	70,394	255	truck	6	1	Ne-156						
	Pour House	Marion, Stock	9	36	surface	strip	317,096	255	truck	19	1	Ne-154						
	Muskingum Mine	Brookfield, Noble, Sharon	9	49	surface	strip auger Total	402,633 46,482 449,115	33	conveyor other Total	31 25 447,778	66	Ne-41 ¹³						
	Nau	Buffalo	7	30	surface	strip	36,054	159	truck	9	2	Ne-152						
	Quaker City Pit	Beaver	8	40	surface	strip	1,193	15	water	<1	<1	Ne-153						
Central Ohio Coal Co.	Long-LaFever	Beaver	9	40	surface	strip auger Total	5,354 2,779 8,133	10	water truck Total	1 7,725	1	Ne-147						
						PERRY COUNTY — Total production = 262,085 tons												
						Avis Coal Co.	Monroe, Pleasant, Salt Lick	6	120	surface	strip auger Total	85,600 41,047 126,647	132	truck	13	Py-A		
						Post Bristol Mine Hazelton Mine	Monroe, Salt Lick Pike Salt Lick	7 6 5	42 40 28	surface	strip strip strip	15,399 2,380 42,781	39 6 159	truck truck truck	2 2 8	2 <1 3	Py-340 Py-BMR Py-BM	
	Roger's Hollow Crooksville Strip	Salt Lick Bearfield	6 5	48 18	surface	strip strip	24,078 50,310	77 254	truck truck	4 11	3 3	Py-B Py-317						
	County Rd. 7 Mine	Monday Creek	6	30 18	surface	strip	490	1	truck	1	1	Py-338						
	STARK COUNTY — Total production = 331,867 tons																	
	American Landfill, Inc.	Sandy	5	24	surface	strip	65,054	160	truck	9		Sk-246						
	Buckeye-Industrial Mining Co.	Clapper	6 5,6	30 30	surface	strip	17,844	20	truck	3	1	Sk-247						
	ENZ, Inc.	Cable Scott Creighton Pit	Osnaburg Osnaburg, Sandy Sandy	5,6 5,6 4	30 33 24	surface	strip	155,568	250	truck	12	1	Sk-249					
strip							11,312	10	truck	2	1	Sk-245						
strip							57,581	280	truck	7	1	Sk-208						

ILLINOIS GEOLOGICAL
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Company	Mine	County	Surface	Strip	Auger	Total	Truck	11,500	133	11,500	Truck	11,500	3	<1	Sk-235
Holmes Limestone Co.	Bolivar Mine	Bethlehem	36	4	5	6	30	36	30	36	30	36	3	<1	Sk-235
Valley Mining, Inc. Waste Management of Ohio, Inc.	Statewide RDF Countywide RDF	Canton Bethlehem, Pike	36	6	6	5	18	36	18	36	18	36	1	3	Sk-WM Sk-217
TUSCARAWAS COUNTY - Total production = 1,888,644 tons															
Belden Brick Co.	Shanesville Moonaw	Auburn Sugar Creek	4	4	4	3B	30	36	30	36	30	36	1	1	Ts-1939
Costain Coal, Inc.	Costain Coal, Inc.	Clay, Salem	30	30	30	6	34	36	36	36	34	36	1	2	Ts-1517
			36	7	7								36	22	Ts-1646 Ts-115
Daron Coal Co., Inc.	Pleasant Valley Mine	Union	42	6	7		20	42	20	42	20	42	9	3	Ts-1991
			20												
			20	7	7			20	20	20	20	20	2	2	Ts-DC
Green Basin Coal, Inc.	Green Basin Coal, Inc.	Lawrence	18	5	5A	7	30	18	12	18	30	18	2		Ts-2024
Holmes Limestone Co.	Stone Creek Dennison	Jefferson, York Rush	30	7	7	7	30	30	30	30	30	30	8	<1	Ts-2023
			30										5	<1	Ts-2017
Horizon Coal Corp.	Clark, Beem Clark, Reynolds James	Rush Salem Dover	30	7	7	6	30	30	30	30	30	30	9		Ts-HLC
			30	7	7	6	30	30	30	30	30	30	2	1	Ts-CR
			30	7	7	6	30	30	30	30	30	30	7	1	Ts-H
J D Mining, Inc.	Slurry Wash Plant Craig Pit	Franklin, Lawrence Goshen	30	6	5	6	30	30	30	30	30	30	3	1	Ts-HC
			30										6	1	Ts-JD
			39	6	6			39	39	39	39	39	6		Ts-1996
			39												
	Ott-Hagloch	Jefferson	36	5	6		30	36	30	36	30	36	6	1	Ts-1996
			30												
James Bros. Coal Co. Kimble Clay & Limestone Co.	Tunnel Hill Kimble Clay & Limestone Co. Kimble Clay & Limestone Co.	Sandy Dover Dover	20	5.6 3A	6		42	20	20	20	20	20	2	1	Ts-2028 Ts-K3
			42	6				42	42	42	42	42	3	1	Ts-K4
	Kimble Clay & Limestone Co.	Dover	20	3A	4	5	36	20	20	20	20	20	3	2	Ts-1727
			36	6	6			36	36	36	36	36	3		
			36												
	Kimble Clay & Limestone Co.	Auburn, York	20	3A	5	6	36	20	28	20	28	20	4	2	Ts-2019
			36	6	6			36	36	36	36	36	4		
			36												
	Kimble Clay & Limestone Co.	Sugar Creek, Wayne	20	3A	4		20	20	20	20	20	20	2	<1	Ts-2022
			20												

¹¹See also Noble County.
¹²See also Washington County.
¹³See also Muskingum County.

1992 OHIO DIRECTORY OF PRODUCING COAL-MINE OPERATORS, BY COUNTY - Continued

Name of company	Name of mine	Township	Seam	Thick- ness (inches)	Type of mine	Method of production	Tonnage produced in 1992	Days in production in 1992	Disposition		Employment		State mine number
									Method	Tonnage	Under- ground	Production Sur- face	
TUSCARAWAS COUNTY (continued)													
L & M Mineral Co.	Luikert	Mill, Warwick	5,6		surface	strip auger Total	9,550 393 9,943	10	truck	9,943	3	3	Ts-1914
	Spring RMI #2	Mill, Warwick Franklin	6 3A 4	28 18	surface surface	strip strip auger Total	4,577 55,930 346 56,276	10 257	truck truck	4,577 56,276	2 6	2	Ts-1982 Ts-2007
Red Malcuit, Inc.	RMI #3	Sandy	5 6	36 36	surface	strip auger Total	54,075 11,120 65,195	209	truck	65,195	6	6	Ts-2006
	RMI #1A	York	6	36	surface	strip auger Total	8,905 496 9,401	116	truck	9,401	4	4	Ts-RM
Miller Mining, Inc.	General Clay et al.	Auburn, Bucks	5,6		surface	strip	197,195	257	rail truck Total	19,569 150,993 170,562	15	1	Ts-GC
	Mizer	Auburn, Jefferson, York	5,6		surface	strip auger Total	35,959 11,269 47,228	252	truck	47,228	6	3	Ts-2027
R & F Coal Co.	Shrock-Troyer-Miller Mast-Miller et al.	Sugar Creek Sugar Creek	3A,4 5,6		surface surface	strip strip strip	4,800 133,473	172 257	truck rail truck Total	4,800 7,152 113,523 120,675	4 13	1 1	Ts-2002 Ts-2010
	Swihart Wright et al. DeLong-Wilsterman	Sugar Creek Wayne Mill	3A,4 5 7	28	surface surface surface	strip strip strip auger Total	29,721 18,705 29,772 17,292 47,064	257 124 193	truck truck truck	29,721 18,705 47,064	3 2 6	1	Ts-WS Ts-EW Ts-DW
Valley Mining, Inc.	Heddleston	Mill	7	28	surface	strip auger Total	5,009 2,839 7,848	61	truck	7,848	1	1	Ts-2005
	Lattavo	Mill	6 7	36 42	surface	strip auger Total	18,111 10,756 28,867	159	truck	28,867	7	3	Ts-2011
Zoar Mining Co.	Gibson	Salem	6 7	42 18	surface	strip auger Total	3,876 1,038 4,914	49	truck	4,914	2	2	Ts-2014
	Taylor	Salem	6	36	surface	strip auger Total	27,354 4,140 31,494	141	truck	31,494	5	5	Ts-2034
Zoar Mining Co.	Zoar Mining Co.	Sandy	4		surface	strip	1,680	5	truck	1,680	1	1	Ts-540

VINTON COUNTY — Total production = 3,642,356 tons															
Addington, Inc.	Dundas Job	Clinton	4	24	surface	strip	1,193,792	306	truck	1,193,792	82	12	Vn-191		
	Route 50 Job	Elk	5	24	surface	strip	36,862	77	truck	36,862	4		Vn-188		
			6	24											
			4	24											
Benedict, Inc.	Waldron Pit	Clinton	4,W	32	surface	strip	117,402	200	truck	117,402	10		Vn-183		
	Allied West	Elk	4A	36	surface	strip	117,402	200	truck	117,402	10		Vn-184		
	Austin Pit	Elk	5	24	surface	strip	117,403	200	truck	117,403	10		Vn-187		
			4A	24											
R. A. Eberts Co., Inc.	Mitchell Hollow B. & D. Pit	Swan Clinton	5	15	surface	strip	117,402	200	truck	117,402	10	2	Vn-172 Vn-192 ¹⁴		
			6	30											
			3	24											
			4	24											
Elk Coal, Inc.	Green Pit	Madison	4A	12	surface	strip	211,054	190	truck	175,977	17	5	Vn-182		
	Elk Strip Sands Hill Strip #3	Elk Clinton	6	18	surface	strip	39,633	154	truck	39,633	8	2	Vn-194 Vn-S		
			3	12											
			5	12											
Southern Ohio Coal Co.	Sands Hill Strip #4	Clinton	4	24	surface	strip	204,648	268	water truck	100,649	13	42			
			4A	34											
			5	15											
			6	15											
Meigs Mine #31	Wilkesville	Clinton	6A	14	surface	strip	119,399	134	water truck	58,319	24		Jkn-SH ¹⁴		
			W	10											
			4A	40											
			5	50											
WASHINGTON COUNTY — Total production = 29,576 tons	Meigs Mine #31	Wilkesville	6	16	drift	longwall cont. miner Total	1,080,961 201,749 1,282,710	123	truck conveyor Total	259,772 1,024,212 1,283,984	123	143	Ms-293 ¹⁵		
			4A	57											
			9	30											
			30	60											
B & N Coal, Inc.	Ullman	Salem	9	30	surface	strip	29,576	60	truck	29,576	2	<1	Ne-151 ¹⁶		
			WAYNE COUNTY — Total production = 11,975 tons										2	1	Hs-79 ¹⁷ We-R
			Holmes Limestone Co. Rash Energy, Inc.	Franklin Paint	4	24	surface	strip	5,107	53	truck	5,107			

¹⁴See also Jackson County.¹⁵See also Meigs County.¹⁶See also Noble County.¹⁷See also Holmes County.

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS

*For those mines for which the Division of Mines has not assigned a state mine number, a letter designation is used (example: Le-A).
If there are no sales or production figures given for an operation, that operation reported no sales or production in 1992.*

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
Addington, Inc. 9431 U.S. Route 60 Ashland, KY 41101-9527 606-928-3433 Larry Addington, pres.	Addington, Inc. (159) (93)	Lawrence	limestone clay			Le-A	IM-1188, D-0746
Addy Sand & Gravel Co. Route 3, 21441 County Rd. 106 Newcomerstown, OH 43832 614-498-8811 Gerald L. Addy, owner	Addy Sand & Gravel Co. (540)	Coshocton	sand & gravel			Cn-A	IM-971
Agg Rok Materials Div. of Wapak Sand & Gravel Co. 711 Frank Rd. Columbus, OH 43223 614-444-4422 Ralph E. Heffner, pres.	Agg Rok Materials (94)	Franklin	sand & gravel	535,844	525,151	Fn-36	IM-302
Akzo Salt, Inc. P.O. Box 6920 Cleveland, OH 44101 216-651-7200 Alan B. Graf, pres.	Cleveland Mine (1)	Cuyahoga	salt	1,732,918	1,940,190	Cya-30	
Akzo Salt, Inc. 2065 Manchester Rd. Akron, OH 44309-0149 216-745-0031 Alan B. Graf, pres.	Akzo Salt, Inc. (4)	Summit	salt	236,928	235,528	St-9127	
Alan Stone Co., Inc. P.O. Box 127 Chesterhill, OH 43728 614-554-6191 Ruth E. Janes, pres.	Marietta Quarry (51) Alan Stone Co., Inc. (43)	Belmont Washington	sandstone sandstone			Bt-1193 Wn-45	IM-1117 IM-125
William Albert, Inc. 1300 Cassingham Hollow Rd. Coshocton, OH 43812 614-622-3045 William Albert, pres.	William Albert, Inc. (438) (88)	Coshocton	sand & gravel clay	26,632	29,550	Cn-828	IM-1026
Alden Sand & Gravel Co. 2584 Northampton Rd. Cuyahoga Falls, OH 44223 216-928-3249 Joan Alden, pres.	Alden Sand & Gravel Co. (496)	Summit	sand & gravel	300	300	St-55	IM-589, IM-932
All Stone Co. 8858 County Rd. 192 Fredericksburg, OH 44627 216-695-3401 Joe L. Knott & Abe L. Miller, partners	All Stone Co. (153)	Coshocton	limestone	1,104	1,104	Cn-A	IM-1011
Allgeier & Son, Inc. 6386 Bridgetown Rd. Cincinnati, OH 45248 513-574-3735 Earl W. Allgeier, pres.	Allgeier & Son, Inc. (467) Allgeier & Son, Inc. (521)	Hamilton Hamilton	sand & gravel sand & gravel	40,000	40,000	Hmn-AS Hmn-AS1	IM-1106 IM-797
Allied Corp., Inc. 1750 Highland Dr. Twinsburg, OH 44087 216-425-7861 Charles Rauh, pres.	Allied Corp., Inc. (435)	Stark	sand & gravel			Sk-173	IM-879
American Aggregates Corp. P.O. Box 147515 Dayton, OH 45413-7515 513-454-1128 Geoff C. Harris, pres.	Hamilton #710 (29) Fairfield #711 (30) Urbana #215 (48) Springfield #423 (16) Fairborn #413 (52) Fort Jefferson #424 (19) Delaware Stone #227 (22) Shawnee #225 (20) Blue Rock Limestone #427 (27) Sugar Creek Plant #223 (29) Marble Cliff #224 (30)	Butler Butler Champaign Clark Clark Darke Delaware Delaware Fayette Fayette Franklin	sand & gravel sand & gravel sand & gravel limestone sand & gravel limestone limestone limestone limestone limestone limestone	645,927 1,382,953 227,352 120,281 635,222 316,774 382,661 702,340 208,392 1,438,739	636,401 1,440,591 147,189 107,318 604,034 404,149 642,111 666,888 116,723 1,744,426	Br-5 Br-35 Cpn-1 Ck-1 Ck-13 Dke-1 Del-3 Del-4 Fe-2 Fe-3 Fn-2	IM-153 IM-200 IM-371 IM-373 IM-366 IM-362 IM-327 IM-262 IM-169 IM-329 IM-261

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	* Division of Reclamation permit number
American Aggregates Corp. (con't)	Columbus #210 (95) Lockbourne #213 (96) Columbus Limestone #221 (31) Cedarville Limestone #425 (32) Fairborn Limestone #431 (142) Haines Rd. #419 (405) Xenia #414 (110) Spring Valley Gravel #434 (404) Beavercreek Limestone #426 (155) Harrison #712 (118) Campbell Rd. #715 (407) Kilby Rd. #713 (119) Newark #214 (174) East Liberty #226 (49) Troy Gravel #433 (219) Piqua Gravel #430 (216) Tipp City Gravel #435 (220) Phillipsburg Limestone #421 (70) Dayton Limestone #420 (71) Huber Heights Limestone #432 (143) Rip Rap Road #416 (224) Circleville #216 (251) American Aggregates Corp. (571) Franklin #714 (349)	Franklin Franklin Franklin Greene Greene Greene Greene Greene Greene Hamilton Hamilton Hamilton Licking Logan Miami Miami Miami Montgomery Montgomery Montgomery Montgomery Pickaway Preble Warren	sand & gravel sand & gravel limestone limestone limestone sand & gravel sand & gravel sand & gravel limestone sand & gravel sand & gravel sand & gravel limestone sand & gravel sand & gravel sand & gravel limestone limestone limestone limestone sand & gravel sand & gravel sand & gravel sand & gravel	1,028,378 99,280 2,277,104 211,732 268,225 133,945 406,216 356,957 0 827,453 350,425 33,777 168,388 133,536 363,528 0 332,043 158,278 114,449 354,505 217,162 337,186	966,583 0 2,343,561 398,929 328,241 149,914 517,981 284,335 5,517 865,523 406,872 17,818 59,946 2,870 405,467 20,600 489,822 4,099 77,965 348,430 234,126 372,971	Fn-6 Fn-23 Fn-53 Ge-17 Ge-25 Ge-32 Ge-33 Ge-42 Ge-45 Hmn-37 Hmn-69 Hmn-AAC Lg-2 Lgn-1 Mi-3 Mi-6 Mi-8 My-1 My-23 My-32 My-66 Pky-1 Pre-AAC Wan-38	IM-185 IM-183 IM-185 IM-435 IM-437 IM-400 IM-379 IM-954 IM-364 IM-170 IM-969 IM-716 IM-184 IM-574 IM-462, IM-658 IM-356 IM-355 IM-374 IM-368 IM-1012 IM-677 IM-409, IM-428 IM-779 IM-615
American Landfill, Inc. 7916 Chapel St. SE Waynesburg, OH 44688 216-856-8800 Scott Porter, pres.	American Landfill, Inc. (123) (123)	Stark	clay shale	285,232	285,232	Sk-246	IM-1114
American Olean Tile Co., Inc. Lewisport, KY 42351 502-295-3411 Hervey Howell, mgr.	Jefferys (24)	Lawrence	clay			Le-440	IM-828
American Sand & Gravel 8188 Wales Rd. NW North Canton, OH 44720 216-494-6455 Christopher Scala, pres.	American Sand & Gravel (387) American Sand & Gravel (386) American Sand & Gravel (455)	Portage Stark Stark	sand & gravel sand & gravel sand & gravel	570 6,000 331,534	570 6,000 331,534	Pe-ASG Sk-203 Sk-243	IM-212 IM-654 IM-908
Apache Aggregate & Paving Co. 46626 County Rte. 495 Coshocton, OH 43812 614-622-5904 Charlene Ross, pres.	Apache Aggregate & Paving Co. (69) Apache Aggregate & Paving Co. (70)	Coshocton Coshocton	sand & gravel sand & gravel	134,564	80,434	Cn-718 Cn-783	IM-227 IM-717
Ashcraft Sand & Gravel, Inc. 5840 Dry Fork Rd. Cleveland, OH 45002 513-367-2177 Rick Ashcraft, v. pres.	Ashcraft Sand & Gravel, Inc. (120)	Hamilton	sand & gravel	43,161	43,161	Hmn-54	IM-710
Athens Hocking Reclamation Center 35380 Hocking Dr. P.O. Box 946 Logan, OH 43138 614-385-6019 Edward F. Kilbarger, pres.	Athens Hocking Reclamation Center (81)	Athens	clay	403	403	As-594	
Atlantic Investment Co. 4530 Talmadge Green Toledo, OH 43623 419-471-9589 Greg Trala & Tom Crawford, partners	Atlantic Investment Co. (471)	Lucas	sand & gravel	34,929	34,929	Ls-AI	IM-1058
Atlas Towing Co. P.O. Box 1632 Parkersburg, WV 26101 304-428-0341 Christopher V. Criss, pres.	Belpre Bank Run (432)	Washington	sand & gravel	11,009	11,009	Wn-54	IM-383
Aurora Sand & Gravel, Inc. 60 Treat Rd. Aurora, OH 44202 216-641-0300 Gary Helf, pres.	Aurora Sand & Gravel, Inc. (260)	Portage	sand & gravel	122,703	147,184	Pe-84	IM-868

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
Ayers Limestone Quarry, Inc. 2000 Colerain Pike P.O. Box 67 Martins Ferry, OH 43935 614-633-2958 Thomas E. Ayers, pres.	Ayers Limestone Quarry, Inc. (12)	Belmont	limestone	80,417	80,417	Bt-716	IM-1
B & D Paving Co. P.O. Box 463 Powhatan Point, OH 43942 304-233-6505 Suzanne Hendershot, pres.	B & D Paving Co. (424)	Monroe	sand & gravel	24,527	24,527	Me-508	IM-1000
B-M Machine Co. 12264 Princeton Rd. Huntsburg, OH 44046 216-635-9151 Robert Zalar, owner	B-M Machine Co. (442)	Geauga	sand & gravel			Gea-39	IM-974
B & N Coal, Inc. P.O. Box 100 Dexter City, OH 45727 614-783-3575 Gilbert Baker, pres.	B & N Coal, Inc. (179)	Noble	limestone			Ne-B	IM-897
Bada, Inc. 5619 State Route 83 Millersburg, OH 44654 216-674-0677 Robert C. Ross, pres.	Bada, Inc. (524)	Holmes	sand & gravel			Hs-B	IM-1131
Baker Sand, Inc. 7800 White Rd. Burbank, OH 44214 216-948-1448 Thom E. Baker, pres.	Baker Sand, Inc. (203)	Medina	sand & gravel	710,318	710,318	Ma-20	IM-448
Barrett Paving Materials, Inc. Ohio Division 7374 Main St. Cincinnati, OH 45244 513-271-6200 Xavier Lepercq, pres.	Perintown (59)	Clermont	sand & gravel			Ct-9	IM-526
Barrett Paving Materials, Inc. 9570 State Rte. 128 Harrison, OH 45030 513-271-6200 Xavier Lepercq, pres.	Miamitown Sand & Gravel (121)	Hamilton	sand & gravel			Hmn-44	IM-120
Barrett Paving Materials, Inc. Midwest Division — North 727 E. Ash St. P.O. Box 917 Piqua, OH 45356-0917 513-773-1933 Chris Ziehler, dist. mgr.	Fairborn #141 Ludlow (66) Barrett Paving Materials, Inc. (177)	Clark Miami Miami	sand & gravel limestone limestone	198,685 336,529	198,685 336,529	Ck-28 Mi-502 Mi-BPM	IM-1100 IM-414 IM-1169
Beaver Creek Resources, Inc. 7219 Salem-Unity Rd. Salem, OH 44460 216-337-3534 Delyte De Yarmon, pres.	Beaver Creek Resources, Inc. (64) (3)	Columbiana	sand & gravel sandstone	231 32,023	231 32,023	Ca-855	IM-891
Beaver Excavating Co. 4650 Southway St. SW Canton, OH 44706 216-478-2151 W. M. Sterling, pres.	Beaver Excavating Co. (100)	Portage	clay			Pe-B	IM-1054
Beck Sand & Gravel, Inc. 2820 Webb Rd. Ravenna, OH 44266 216-626-3863 Robert E. Wenrich, pres.	Beck Sand & Gravel, Inc. (256)	Portage	sand & gravel	200,712	200,712	Pe-50	IM-96
Becky Lane Trucking, Inc. 441 Iowa St. Ashland, KY 41101 606-325-8301 Janet Griffiths, pres.	Becky Lane Sand (167)	Lawrence	sand & gravel	22,054	22,054	Le-430	IM-844

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
Paul D. Beery Trucking Co. 4770 Cincinnati-Zanesville Rd. NE Lancaster, OH 43130 614-653-5061 Paul D. Beery, pres.	Paul D. Beery Trucking Co. (401)	Fairfield	sand & gravel	3,563	2,863	Fd-14	IM-933
Belden Brick Co. P.O. Box 910 Canton, OH 44701 216-852-2424 William H. Belden, Jr., pres.	Moomaw Pit (62) (56) (56)	Tuscarawas	sandstone clay shale	107,400 78,448 91,433	107,400 78,448 91,433	Ts-1517	IM-46
	Belden Pit (57) (57)	Tuscarawas	clay shale	31,887 40,083	31,887 40,083	Ts-1646	IM-44
	Wallick Pit (58) (58)	Tuscarawas	clay shale	101,676	101,656	Ts-1841	IM-45
	Shanesville Pit (59) (59)	Tuscarawas	clay shale	24,658 98,821	24,658 98,821	Ts-1939	IM-47
	Beagle Pit (60) Plotner Pit (181) (147) (147)	Tuscarawas Tuscarawas	clay limestone clay shale	13,641	13,641	Ts-1960 Ts-B	IM-48 IM-49
Belville Mining Co., Inc. P.O. Box 834 Ironton, OH 45638 614-643-2331 Thomas J. Belville, pres.	Belville Mining Co., Inc. (159) (93)	Lawrence	limestone clay	55,857 4,082	55,857 4,082	Le-B	IM-1118, D-0746
Benco Leasing, Inc. 1012 Commercial Ave. SE New Philadelphia, OH 44663 216-339-3339 Ben Cookson, pres.	Goshen Sand & Gravel (389)	Tuscarawas	sand & gravel	32,800	57,400	Ts-1976	IM-941, IM-942
Best Sand Corp. 11830 Ravenna Rd. P.O. Box 87 Chardon, OH 44024 216-946-3441 William E. Conway, pres.	Best Sand Corp. (17)	Geauga	sandstone	604,685	645,169	Gea-3	IM-89
Beverly Slag Co. P.O. Box 599 McConnelsville, OH 43756 614-962-5621 Fred R. Price, pres.	Devola Pit (364)	Washington	sand & gravel			Wn-55	IM-669
Big Walnut Sand & Gravel Co. 88 W. Mound St. Columbus, OH 43215-5018 614-224-2678 Steven D. Rowe, partner	Big Walnut Sand & Gravel Co. (97)	Franklin	sand & gravel			Fn-14	IM-832
Black Gold Recovery, Inc. 65105 Old Route 800 Barnesville, OH 43713 614-838-6555 Tim Hall, pres.	Black Gold Recovery Limestone (151)	Belmont	limestone	31,273	46,273	Bt-1192 ¹	IM-1093
Black Top Contracting, Inc. P.O. Box 98 Belpre, OH 45714 614-423-5455 Terry R. Wyatt, pres.	Black Top #1 (19)	Athens	sand & gravel	7,279	7,279	As-588	IM-630
E. E. Blair Construction Co. P.O. Box 39 Wheelersburg, OH 45694 614-574-6575 Edwin E. Blair, pres.	Blair Pit (303)	Scioto	sand & gravel			So-98	IM-474
Blue Jay Enterprises of Tuscarawas Co., Inc. P.O. Box 641 Zoar, OH 44697 216-874-2048 Leland D. Ervin, pres.	Swonger-Waltz Mine (85) (85)	Tuscarawas	clay shale	36,138 12,289	36,138 12,289	Ts-520	IM-214
Bluffton Stone Co. P.O. Box 26 Bluffton, OH 45817-0026 419-358-6941 Brent C. Gerkin, pres.	Bluffton Stone Co. (3)	Allen	limestone	191,177	191,177	An-1	IM-485

¹This mine was operated 1st quarter 1992 by Lakeland Construction, and 2nd through 4th quarters by Black Gold Recovery, Inc.

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
Bolin & Bartley, Inc. 1217 County Rd. 1475 R.D. 1 Ashland, OH 44805 419-289-1507 Clarence W. Bolin, sec./treas.	Simington Rd. (509) Bolin & Bartley Sand & Gravel (409)	Ashland Richland	sand & gravel sand & gravel	1,320 57,808	1,320 48,614	Ald-16 Rd-20	IM-1120 IM-617
Elmer Borchardt, Inc. 313 E. Lucas St. P.O. Box 188 Castalia, OH 44824-0188 419-684-5361 Dean Wikel, pres.	Elmer Borchardt, Inc. (83)	Erie	sand & gravel	312	312	Ee-18	IM-676
Bowerston Shale Co. 515 Main St. Bowerston, OH 44695 614-269-2921 William U. Milliken, pres.	Bowerston (11) Bowerston Shale Co. (109)	Harrison Harrison	shale shale	26,598	26,598	Hn-152 Hn-B	IM-42 IM-1020
Bowerston Shale Co. 1329 Seven Hills Rd. NE Newark, OH 43055 614-763-3921 William U. Milliken, pres.	Hanover (31) Frazeyburg (38)	Licking Muskingum	shale clay	17,388 14,148	17,388 14,148	Lg-501 Mum-776	IM-257 IM-256
D. H. Bowman & Sons, Inc. 1201 State Rte. 97 Bellville, OH 44813-1227 419-886-2711 Richard D. Bowman, pres.	D. H. Bowman & Sons, Inc. (287)	Richland	sand & gravel	28,619	36,125	Rd-4	IM-279
Boyas Excavating, Inc. 4100 Brookpark Rd. Cleveland, OH 44134-1196 216-398-3900 Pete Boyas, pres.	Boyas' Valley View Quarry (13)	Cuyahoga	sandstone	1,100	1,100	Cya-42	IM-686
Boyd Gravel Co. 24270 Twp. Rd. 1202 Coshocton, OH 43812 614-622-4406 Richard Mill, pres.	Boyd Gravel Co. (71)	Coshocton	sand & gravel	160,947	196,261	Cn-694	IM-293
Boyd Gravel Co. 1985 Gene Cox Memorial Dr. Dresden, OH 43821 614-754-3311 Don Mill, pres.	Jennings-Lacy (244) Prospect (243) Gilbert Cox (449)	Muskingum Muskingum Muskingum	sand & gravel sand & gravel sand & gravel	238,527	293,175	Mum-799 Mum-863 Mum-899	IM-317 IM-264
Briar Hill Stone Co. P.O. Box 457 Glenmont, OH 44628 216-377-5100 F. L. Waller, pres.	Quarry #26 (4) Quarry #3 (5) Quarry #32 (6) Quarry #24 (7) Quarry #18 (8) Quarry #54 (46) Quarry #55 (44) Quarry #31 (19) Quarry #6 (23)	Coshocton Coshocton Coshocton Coshocton Coshocton Coshocton Coshocton Holmes Knox	sandstone sandstone sandstone sandstone sandstone sandstone sandstone sandstone sandstone	2,508 5,111 1,414 319 5,611	2,508 5,111 1,414 319 5,611	Cn-13 Cn-659 Cn-686 Cn-692 Cn-695 Cn-809 Cn-815 Hs-49 Kx-12	IM-397 IM-232 IM-504 IM-294 IM-402 IM-909 IM-939 IM-418 IM-445
Briggs Sand & Gravel, Inc. Rte. 4 County Rd. 10 Box 303 Marietta, OH 45750 614-373-3363 James F. Briggs, pres.	Briggs Sand & Gravel, Inc. (365)	Washington	sand & gravel	9,125	9,125	Wn-508	IM-57
Broadway Sand & Gravel, Inc. 2000 Sandridge Dr. Dayton, OH 45439 513-299-1166 George D. Jones, v. pres.	Broadway Sand & Gravel, Inc. (225)	Montgomery	sand & gravel	39,706	39,706	My-65	IM-594
Broshear Contractors, Inc. 2520 Millville-Ross Rd. Hamilton, OH 45013 513-863-3388 Clarence Broshear, pres.	Ross Township Gravel (31)	Butler	sand & gravel	880	880	Br-48	IM-562
Karl Bruggmann Sand & Gravel, Inc. 8420 Weaver Rd. Ravenna, OH 44266 216-626-3914 Donald H. Bruggmann, owner	Karl Bruggman Sand & Gravel, Inc. (257)	Portage	sand & gravel	48,211	48,211	Pe-15	IM-104

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
Oscar Brugmann Sand & Gravel, Inc. 3828 Dudley Rd. Mantua, OH 44255 216-274-8224 Roy Brugmann, pres.	Oscar Brugmann Sand & Gravel, Inc. (258)	Portage	sand & gravel	274,612	300,500	Pe-9	IM-119
Buckeye Excavating 10718 Old Lincoln Way East Orrville, OH 44667 216-857-7665 Steven R. Steiner, owner	Steiner Pit (535)	Wayne	sand & gravel	33,989	33,989	We-23	IM-1136
Buckeye-Industrial Mining Co. P.O. Box 389 Lisbon, OH 44460 216-337-9511 John C. Grisham, pres.	Buckeye-Industrial Mining Co. (129) Scott Job (141) Cable Job (146) (146)	Carroll Stark Stark	clay clay clay shale	1,400 3,296 24,306 5,085	1,400 3,296 24,306 5,085	Cl-B Sk-245 Sk-247	IM-1165 D-0653 D-0929
James Bunnell, Inc. 5730 State Rte. 128 Cleves, OH 45002 513-353-1100 James Bunnell, pres.	James Bunnell, Inc. (123) James Bunnell, Inc. (124) James Bunnell, Inc. (195)	Hamilton Hamilton Hamilton	sand & gravel sand & gravel sand & gravel	128,499 233,725 306	128,499 233,725 306	Hmn-50 Hmn-59 Hmn-B	IM-205 IM-815 IM-1139
Burlington Sand & Gravel Co. P.O. Box 399 Chesapeake, OH 45619 614-894-5978 Vernon E. Collier, owner	Burlington Sand & Gravel Co. (170)	Lawrence	sand & gravel	6,178	6,178	Le-426	IM-856
Burrgett Industries, Inc. P.O. Box 651 Newcomerstown, OH 43832 614-498-8561 Thomas J. Miller, pres.	Burrgett Industries, Inc. (532)	Tuscarawas	sand & gravel	38,699	38,699	Ts-2029	IM-1129
C & S Contractors, Inc. P.O. Box 42459 Cincinnati, OH 45242 513-791-7747 Raymond A. Conn, pres.	C & S Contractors, Inc. (356)	Warren	sand & gravel			Wan-47	IM-846
Canton Aggregate Div. of Central Allied Enterprises, Inc. P.O. Box 80449 Canton, OH 44708-0449 216-477-6751 John A. Woodhall, Jr., pres.	Canton Aggregate (318) Canton Aggregate (319)	Stark Stark	sand & gravel sand & gravel	298,233 61,938	298,233 61,938	Sk-681 Sk-689	IM-164 IM-173
C. Carmical Sand & Gravel 7325 Thompson Rd. Cincinnati, OH 45247 513-385-8637 C. Carmical, pres.	C. Carmical Sand & Gravel (520)	Hamilton	sand & gravel	250	250	Hmn-C	IM-1132
Carter & Webb, Inc. P.O. Box 266 Miamisburg, OH 45342 513-859-5414 Charles V. Carter, pres.	Carter & Webb, Inc. (561)	Montgomery	sand & gravel			My-CW	IM-878
Cedar Heights Clay Co. Division of Resco Products, Inc. P.O. Box 295 Oak Hill, OH 45656-0295 614-682-7794 William T. Tredennick, pres.	Gallia Red Sand (507) Shumate/Alban (21) Cedarloo/Jenkins/Greer (22) Katie Walke (91) Sadler (145) (145)	Gallia Jackson Jackson Jackson Jackson	sand & gravel clay clay clay clay shale	419 46,702 3,880	419 46,702 3,880	Ga-507 Jkn-1001 Jkn-1007 Jkn-CH Jkn-CH1	IM-1074 IM-19 IM-24 IM-1060 IM-1182
Celotex Corp. P.O. Box 280 Port Clinton, OH 43452 419-734-3153 W. D. Herbert, pres.	American #2 (1)	Ottawa	gypsum	205,025	205,025	Oa-2	IM-344
Central Ohio Coal Co. P.O. Box 98 Cumberland, OH 43732 614-962-2013 J. E. Katlic, exec. v. pres.	Horse Run Stone Quarry (73) Central Ohio Coal Co. (165) Coal Hill (166)	Morgan Morgan Muskingum	limestone limestone limestone	137,756	137,756	Mon-600 Mon-C Ne-C	IM-281 IM-1010 D-0820

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
Central Silica Co. 806 Market St. P.O. Box 4477 Zanesville, OH 43702-4477 614-452-2775 James P. Snider, v. pres. & gen. mgr.	Millwood Sand Division (24) Glass Rock (48) (137)	Knox Perry	sandstone sandstone clay	173,461 286,523 58,868	173,461 286,523 58,868	Kx-1 Py-344	IM-269 IM-1014
Jeff Chaney P.O. Box 466 Killbuck, OH 44637 216-276-2444 Jeff Chaney, owner	Spring Run Gravel (416)	Holmes	sand & gravel	8,769	8,769	Hs-96 ²	IM-997
Charlestown Sand & Gravel, Inc. 7845 State Rte. 5 Ravenna, OH 44266 216-474-8534 Yale Stuble, pres.	Charlestown Sand & Gravel, Inc. (259)	Portage	sand & gravel	11,134	11,134	Pe-17	IM-123
Chattin Concrete 9978 State Rte. 220 P.O. Box 49 Waverly, OH 45690 614-947-4677 Jeffery Chattin, owner	Chattin Concrete (253)	Pike	sand & gravel	675	675	Pke-23	IM-242
Chesterhill Stone Co. 773 East State Rte. 60 NE P.O. Box 599 McConnellsville, OH 43756 614-962-5621 Fred R. Price, pres.	Plant #2 (240) Chesterhill Stone Co. (478) Graham Farm (563) Plant #1 (75)	Morgan Morgan Morgan Muskingum	sand & gravel sand & gravel sand & gravel limestone	272,983 571,101	261,695 575,392	Mon-588 Mon-CS Mon-CSC Mum-106	IM-35 IM-1105 IM-1178 IM-297
Chesterville Sand & Gravel Co., Inc. State Rte. 95 E P.O. Box 51 Chesterville, OH 43317 419-768-3369 Carrol D. Gleason, pres.	Chesterville Sand & Gravel Co., Inc. (242)	Morrow	sand & gravel	79,213	79,213	Mw-10	IM-258
Chillicothe Sand & Gravel Co. 1177 Hopetown Rd. Chillicothe, OH 45601 614-775-3751 Don E. Mill, pres.	Chillicothe Sand & Gravel Co. (490)	Ross	sand & gravel	336,196	336,196	Rs-27	IM-1098
Christman Quarry 47278 Swazey Rd. Lewisville, OH 43754 614-838-2475 Gerald L. Christman, owner	Christman Quarry (163)	Monroe	limestone	75,432	65,432	Me-C	IM-1088
Clark Clay Co. 6918 Township Rd. 310 Millersburg, OH 44654 216-674-5150 Dwight S. Clark, owner	Clark Clay Co. (17)	Holmes	clay	2,485	2,400	Hs-56	
Claycraft Co. P.O. Box 866 Columbus, OH 43216 614-866-3300 P. W. Tefft, pres.	Claycraft Plant #1 Clay Pit (73)	Wyandot	clay	14,982	14,982	Wt-7	IM-407
Cleveland Quarries Co. P.O. Box 261 Amherst, OH 44001-0261 216-986-4501 D. L. Mitchell, pres.	Birmingham Quarry (14) Amherst Quarries (27)	Erie Lorain	sandstone sandstone	257 4,097	257 4,097	Ee-21 Ln-3	IM-416 IM-415
M. J. Coates Construction Co. P.O. Box 231 Centerville, OH 45459 513-433-1581 M. J. Coates, owner	M. J. Coates Construction Co. (548)	Greene	sand & gravel			Ge-MJ	IM-751
Cochran Transportation Services, Inc. P.O. Box 578 Athens, OH 45701 614-593-3906 Charles W. Cochran, pres.	Cochran Transportation Services, Inc. (458) (87)	Athens	sand & gravel clay	24,145	24,145	As-595	IM-1083

²This mine was operated 1st quarter 1992 by Spring Run Farm & Gravel, and 2nd through 4th quarters by Jeff Chaney.

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
Boone Coleman Route 5, Box 292 Portsmouth, OH 45662 614-858-6661 Boone Coleman, pres.	Boone Coleman (576)	Scioto	sand & gravel			So-B	IM-705
Con-Ag, Inc. 16672 County Rd. 66A N St. Marys, OH 45885 419-394-8870 Robert E. Hirschfeld, pres.	Con-Ag, Inc. (10)	Auglaize	limestone	198,817	212,537	Ae-31	IM-744
Conotton Valley Quarries Co. P.O. Box 207 Sherrodsville, OH 44675 614-269-3481 Nick J. Puskarich, pres.	Conotton Valley Quarries Co. (1)	Carroll	sandstone	14,175	14,175	Cl-102	IM-278
Cooper Sand & Gravel P.O. Box 427 Russells Point, OH 43348 513-843-3426 Lou Leona Cooper, executrix	Cooper Sand & Gravel (411)	Logan	sand & gravel	152	0	Lgn-40	IM-996
Coprolite Sand & Gravel Corp. Route 3, Box 350 Marietta, OH 45750 614-373-5763 Thomas G. Love, pres.	Devola Plant #2 (371)	Washington	sand & gravel	12,800	12,800	Wn-44	IM-63
Crates Excavating 14628 State Rte. 31 Kenton, OH 43326 419-675-1558 J. Roger Crates, owner	Crates #2 (469)	Hardin	sand & gravel			Hdn-C	IM-1081
Cremeans Concrete & Supply Georges Creek Rd. P.O. Box 475 Gallipolis, OH 45631 614-446-1142 Frank A. Cremeans, pres.	Cremeans Concrete & Supply (440)	Gallia	sand & gravel	2,626	2,626	Ga-626	IM-1046
R. A. Cruise Sand & Gravel, Inc. 7639 State Rte. 14 Ravenna, OH 44266 216-296-4087 Larry R. Cruise, pres.	R. A. Cruise Sand & Gravel, Inc. (261)	Portage	sand & gravel	58,081	58,081	Pe-45	IM-139
Cunningham Asphalt Paving, Inc. P.O. Box 370 Wheelersburg, OH 45694 614-574-6184 Karl Cunningham, pres.	Cunningham Pit (304)	Scioto	sand & gravel			So-83	IM-211
D. & D. Mining Co. 3379 E. Garfield Rd. New Springfield, OH 44443 216-549-3127 Donald Thompson, pres.	D. & D. Mining Co. (57) D. & D. Strip (130)	Columbiana Columbiana	sandstone clay	12,421	12,421	Ca-888 Ca-348	IM-1181 IM-976
D & D Sand Bank Rte 7 Box 473 South Point, OH 45680 614-377-4765 Eileen Pemberton, owner	D & D Sand Bank (388)	Lawrence	sand & gravel	4,676	2,476	Le-445	IM-928
D & W Sand & Gravel 10677 Wren Rd. Mechanicsburg, OH 43044 513-834-2548 Dale Potter, owner	D & W Sand & Gravel (49)	Champaign	sand & gravel	4,947	4,947	Cpn-21	IM-616
Darby Gravel Co. 9780 U.S. Route 62 Orient, OH 43146 614-877-4184 Louis Johnson & Dwight Harris, owners	Darby Gravel Co. (479) Darby Gravel Co. (564) (139)	Pickaway Pickaway	sand & gravel sand & gravel clay	336 2,387	336 2,387	Pky-7 Pky-D	IM-1067 IM-1150

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
Davon, Inc. 4281 Roush Rd. Hillsboro, OH 45133 513-393-4211 John B. Patton, pres.	Plum Run Stone Division (1) Highland Stone Division (41)	Adams Highland	limestone limestone	1,467,097 712,186	1,490,509 734,981	Ads-1 Hd-2	IM-237 IM-230
Demmy Construction, Inc. 4999 Tecumseh Rd. Springfield, OH 45502 513-325-9429 Daniel E. Demmy, pres.	Kieffer Pit (385)	Clark	sand & gravel	14,861	14,861	Ck-501	IM-340
Demmy Sand & Gravel 4324 Fairfield Pike Springfield, OH 45502 513-325-8840 Woodrow Demmy, owner	Demmy Sand & Gravel (54)	Clark	sand & gravel	5,791	5,791	Ck-502	IM-375
Dennis Clay Co. 11123 State Rte. 37 East New Lexington, OH 43764 614-342-5473 Tom L. Dennis, owner	Ohio Power (124) (124) Dennis Clay Co. (108)	Muskingum Perry	clay shale clay shale	11,633 1,630 10,960 23,980	11,633 1,630 15,249 33,713	Mum-903 Py-338	IM-1115 IM-1092
A. J. Diana Sons, Inc. 1916 Erie Ave. NW P.O. Box 488 Massillon, OH 44648 216-832-5904 Virgil V. Diana, pres.	Neidert Pit (320)	Stark	sand & gravel	29,886	29,886	Sk-694	IM-858
Dingledine Basic Materials, Inc. 2304 Somerville Rd. P.O. Box 86 Somerville, OH 45064 513-726-5258 Gerald Dingledine, owner	Dingledine Basic Materials, Inc. (32)	Butler	sand & gravel	39,936	39,936	Br-50	IM-739
Dome Minerals, Inc. P.O. Box 11 Hanoverton, OH 44423 216-223-1413 Fred A. Rogers, pres.	Dome Minerals, Inc. (79)	Columbiana	shale	5,903	5,903	Ca-947	IM-935
Don's Dozer Service 8200 Seasons Rd. Streetsboro, OH 44241 216-626-5147 Donald R. McElravy, pres.	Don's Dozer Service (529)	Portage	sand & gravel	1,088	1,088	Pe-96	IM-792
James E. Downard 1885 Mt. Zwingli Rd. Bremen, OH 43107 614-569-7849 James E. Downard, owner	James E. Downard (541)	Fairfield	sand & gravel	10,139	10,139	Fd-16	IM-1156
Dravo Basic Materials Co., Inc. 5253 Wooster Rd. Cincinnati, OH 45226 513-321-2700 H. Donovan Ross, pres.	Fairfield Plant (33) Ross Plant (34) Cleves Plant (126) Camp Dennison Plant (127) Newtown Plant (128) Cleves Plant (130) Cleves Plant (131) Newtown Plant (128) Dravo Basic Materials Co., Inc. (468) Dravo Basic Materials Co., Inc. (175) Apple Grove Plant (209) South Lebanon Plant (352)	Butler Butler Hamilton Hamilton Hamilton Hamilton Hamilton Hamilton Hamilton Highland Meigs Warren	sand & gravel sand & gravel sand & gravel sand & gravel sand & gravel sand & gravel sand & gravel sand & gravel sand & gravel limestone sand & gravel sand & gravel	677,638 1,002,150 798,209 3 4 29,922	791,569 1,258,801 1,125,233 622,380	Br-14 Br-29 Hmn-3 Hmn-5 Hmn-11 Hmn-64 Hmn-68 Hmn-70 Hmn-D Hd-D Ms-205 Wan-41 ⁵	IM-147 IM-149 IM-137 IM-148 IM-133 IM-821 IM-747 IM-133 IM-1079 IM-1170 IM-30 IM-629
Fred J. Dreslinski 5870 State Rte. 193 Kingsville, OH 44048 216-224-0195 Fred J. Dreslinski, pres.	Fred J. Dreslinski (457)	Ashtabula	sand & gravel			Asa-13	IM-785

³All sales and production are reported under Hmn-3.⁴All sales and production are reported under Hmn-11.⁵See also Carl E. Oeder & Sons Sand & Gravel.

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
Dry Creek Gravel Co. 2097 Mt. Vernon Rd. Newark, OH 43055 614-366-3333 Gail Wolfe, pres.	Plant #2 (176) Plant #3 (177)	Licking Licking	sand & gravel sand & gravel	73,900 178,100	73,900 178,100	Lg-31 Lg-DC	IM-246 IM-354
C. E. Duff & Son, Inc. 9042 State Rte. 117 P.O. Box 295 Huntsville, OH 43324 513-686-2488 James E. Duff, pres.	Portable (444) C. E. Duff & Son, Inc. (50) Duff Sand Co. (182) C. E. Duff & Son, Inc. (420) C. E. Duff & Son, Inc. (183)	Logan Logan Logan Logan Logan	sand & gravel limestone sand & gravel sand & gravel sand & gravel	1,630 273,032 82,711 652	1,630 273,032 82,711 652	Lgn-12 Lgn-15 Lgn-31 Lgn-36 Lgn-39	IM-1071 IM-453 IM-454 IM-1007 IM-887
E.M.A.I. Corp. dba ESSROC Materials, Inc. P.O. Box 5250 Poland, OH 44514 216-536-6275 Philippe Milliet, CEO	ESSROC Materials, Inc. (160) Bessemer Pit (57) (34) Carbon Pit (162) (107) (107)	Lucas Mahoning Mahoning	limestone limestone shale limestone clay shale	388,000 603,735 53,031 530,828 45,325	388,000 862,531 53,031 850,257 45,325	Ls-12 Mg-608 Mg-EM	IM-953 IM-4 IM-1056
East Fairfield Coal Co. 10900 South Ave. P.O. Box 217 North Lima, OH 44452 216-549-2165 R. E. Mackall, pres.	East Fairfield Coal Co. (171) (53) (118)	Mahoning	limestone sandstone clay			Mg-E	IM-1103
Eaton Sand & Gravel Co. 11641 Mosteller Rd. Cincinnati, OH 45241 606-331-2303 Charles Bucklew, pres.	Eaton Sand & Gravel Co. (132)	Hamilton	sand & gravel	1,000	1,000	Hmn-46	IM-396
R. A. Eberts Co., Inc. P.O. Box 191 Jackson, OH 45640 614-682-3506 Phil A. Bowman, pres.	Diamond Stone (9) (128)	Athens	limestone clay	262,645 947	268,031 947	As-533	IM-17
Daniel Ebie Trucking 3072 Congress Lake Rd. Mogadore, OH 44260 216-678-2411 Daniel Ebie, owner	Daniel Ebie Trucking (568)	Portage	sand & gravel	11,456	11,456	Pe-E	IM-1154
David E. Edington P.O. Box 282 Frankfort, OH 45628 614-998-5328 David E. Edington, owner	David E. Edington (573)	Ross	sand & gravel	6,453	6,453	Rs-E	IM-1168
Elm Spring Farm 938 State Rte. 207 Chillicothe, OH 45601 614-775-5525 Joanna J. Haskins, owner	Elm Spring Farm (297)	Ross	sand & gravel	9,500	9,500	Rs-26	IM-922
Embro, Inc. 8320 N. State Rte. 123 Franklin, OH 45005 513-746-6121 Ronald Martz, pres.	Embro, Inc. (589)	Warren	sand & gravel	42,856	42,856	Wan-7	IM-151
Envirosafe Services of Ohio, Inc. 876 Otter Creek Rd. Oregon, OH 43616 419-255-5100 James E. Hamilton, pres.	Envirosafe Services of Ohio, Inc. (95)	Lucas	clay	196,705	196,705	Ls-E	IM-1075
Erie Blacktop, Inc. 4507 Tiffin Ave. P.O. Box 2308 Sandusky, OH 44870 419-625-7374 Dean Wikel, pres.	Erie Blacktop Quarry (24) Erie Blacktop Sand & Gravel Pit (417)	Erie Huron	limestone sand & gravel	53,254 610	176,011 0	Ee-27 Hrn-16	IM-608 IM-975
Erie Sand & Gravel Co. P.O. Box 179 Erie, PA 16512-0179 814-453-6721 Sidney E. Smith, Jr., pres.	Erie Sand & Gravel Co. (1)	Lake Erie	sand & gravel (dredged)	28,964	28,964	Ee-D	

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
Craig Fankhauser 13 Knollwood Perrysburg, OH 43551 419-535-5931 Craig Fankhauser, owner	Craig Fankhauser (557)	Lucas	sand & gravel	8,159	8,159	Ls-F	IM-1160
Feikert Sand & Gravel, Inc. 6971 County Rd. 189 Millersburg, OH 44654-9186 216-674-0038 Lynn O. Feikert, pres.	Feikert Sand & Gravel, Inc. (154)	Holmes	sand & gravel	101,363	101,363	Hs-511	IM-1048
Fenner Sand & Gravel, Inc. 7131 W. Fenner Rd. Ludlow Falls, OH 45339 513-698-7048 Robert P. Snead, pres.	Woodville Concrete Corp. (222)	Miami	sand & gravel	188,000	188,000	Mi-4	IM-472
Fleckenstein Farm Gravel Pit 11251 State Rte. 66 Minster, OH 45865 513-295-2417 Ferd J. Fleckenstein, owner	Fleckenstein Farm Gravel Pit (310)	Shelby	sand & gravel	3,629	3,629	Shy-12	IM-528
Fleming Construction Co., Inc. P.O. Box 31 Marion, OH 43301-0031 614-726-2164 Gerald E. Fleming, pres.	Fleming Construction Co., Inc. (423)	Marion	sand & gravel	200	200	Mn-F	IM-990
Flesher Sand & Gravel, Inc. 3322 Clark Mill Rd. Norton, OH 44203 216-745-9239 James E. Flesher, pres.	Flesher Sand & Gravel, Inc. (327)	Summit	sand & gravel	53,463	53,463	St-52	IM-900
Fouremen's Sand & Gravel, Inc. 2791 Wildcat Rd. Greenville, OH 45331 513-548-8626 Gary B. Fouremen, pres.	Fouremen's Sand & Gravel, Inc. (80)	Darke	sand & gravel	33,966	33,966	Dke-4	IM-433
Fox Stone Products, Inc. P.O. Box 299 Put-In-Bay, OH 43456 419-285-3025 Richard H. Fox, owner	Fox Stone Products, Inc. (180)	Ottawa	limestone			Oa-18	IM-635
The France Stone Co. 8130 Brint Rd. P.O. Box 278 Sylvania, OH 43560-0278 419-882-0123 Glenn E. Sherman, exec. v. pres.	Waterville (52) Sylvania (53) Paulding (86) Flat Rock (107) Bloomville (108) Custar (129)	Lucas Lucas Paulding Seneca Seneca Wood	limestone limestone limestone limestone limestone limestone	418,115 834,984 277,529 1,005,768 425,256 249,008	406,239 817,130 277,555 1,368,019 463,655 278,186	Ls-1 Ls-3 Pg-7 Sa-1 Sa-3 Wd-5	IM-575 IM-580 IM-347 IM-349 IM-473
Friendsville Sand, L.P. 9601 Avon Lake Rd. Lodi, OH 44254 216-948-4338 Richard L. Rothel, pres.	Friendsville Sand, L.P. (558)	Medina	sand & gravel	566	566	Ma-23	IM-1177
Lloyd Fry 727 East Ash St. P.O. Box 917 Piqua, OH 45356 513-773-1933 Lloyd Fry, pres.	Lloyd Fry (390)	Miami	sand & gravel			Mi-T	IM-696
Frye Sand & Gravel, Inc. 3049 S. Denmark Rd. P.O. Box 3 Dorset, OH 44032 216-858-2627 Harold L. Frye, owner	Frye Sand & Gravel, Inc. (9)	Ashtabula	sand & gravel	2,262	2,262	Asa-10	IM-198
G & M Supply, Inc. dba Clinton Stone, Inc. 1203 N. Pennsylvania Ave. P.O. Box 468 Wellston, OH 45692 614-384-5659 Bonny A. Huffman, pres.	Sands Hill (124)	Vinton	limestone	167,455	0	Vn-174	D-0309

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
Ganges Gravel 153 North Gambel St. P.O. Box 42 Shelby, OH 44875 419-342-5361 J. J. Scott, owner	Ganges Gravel (289)	Richland	sand & gravel	572	572	Rd-18	IM-670
John L. Garber Materials, Inc. Rte. 8 Lexington, OH 44904 419-884-1567 John L. Garber, pres.	John L. Garber Materials, Inc. (290)	Richland	sand & gravel	224,750	228,000	Rd-14	IM-436
Al Gasser Excavating, Inc. Route 1, Box 325 Dover, OH 44622 216-343-9407 Allen L. Gasser, pres.	Al Gasser Excavating, Inc. (587)	Tuscarawas	sand & gravel	2,425	2,425	Ts-G	IM-1151
General Clay Products Corp. P.O. Box 236 Baltic, OH 43804-0236 216-897-7171 Harold B. Epler, Jr., pres.	Drescher Pit (6) (6) Troyer Pit (18)	Coshocton Holmes	clay shale shale	15,177 19,371	15,177 19,371	Cn-787 Hs-77	IM-610 IM-545
General Clay Products Corp. P.O. Box 550 Logan, OH 43138 614-385-5616 Harold B. Epler, Jr., pres.	General Clay Products Corp. (12) (12) General Clay Products Corp. (110)	Hocking Hocking	clay shale shale	33,945 16,692 5,500	33,945 16,692 5,500	Hg-205 Hg-330	IM-21 IM-1013
General Clay Products Corp. P.O. Box 340 Wadsworth, OH 44281 216-335-1515 Harold B. Epler, Jr., pres.	General Clay Products Corp. (37)	Medina	shale	48,062	48,062	Ma-6	IM-455
GenLime Group, L.P. P.O. Box 158 Genoa, OH 43430 419-855-8336 P. J. Senechal, pres.	GenLime Group, L.P. (85)	Ottawa	limestone	537,817	242,853	Oa-1	IM-292
Gerken Materials, Inc. P.O. Box 607 Napoleon, OH 43545 419-533-2421 Julian A. Gerken, pres.	Gerken Materials, Inc. (147)	Henry	sand & gravel	157,410	157,410	Hy-5	
Gibson Sand & Gravel Co. 1385 Knorr Rd. Galion, OH 44833 419-468-5527 Arthur T. Gibson, owner	Gibson Sand & Gravel Co. (75)	Crawford	sand & gravel	1,048	1,048	Cd-3	IM-693
Glen-Gery Corp. P.O. Box 398 Caledonia, OH 43314 419-845-3321 Evan Davis, plant supt.	Glen-Gery Corp. (36)	Marion	shale	162,246	162,246	Mn-7	IM-309
David B. Good 10442 W. Easton Rd. West Salem, OH 44287 419-846-3912 David B. Good, owner	David B. Good (508)	Ashland	sand & gravel	2,450	2,450	Ald-G	IM-1121
Goodwin Sand & Gravel, Inc. 126 S. Norton St. Mt. Vernon, OH 43050 614-392-7971 Don E. Mill, pres.	Goodwin Sand & Gravel, Inc. (160)	Knox	sand & gravel	83,471	136,000	Kx-7	IM-235
Gotttron Bros. Co. 100 South Stone St. Fremont, OH 43420 419-332-5281 Harry P. Gotttron, Jr., v. pres.	Gotttron Bros. Co. (101)	Sandusky	limestone	87,825	41,114	Sy-5	IM-259
James D. Graham 2036 State Route 725 Spring Valley, OH 45370 513-862-4289 James D. Graham, owner	James D. Graham (550)	Greene	sand & gravel			Ge-G	IM-655

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
The Gravel Co. 325 Clark Rd. P.O. Box 15501 Cincinnati, OH 45215 513-761-4980 Roy B. Schweitzer, pres.	Cleves (141)	Hamilton	sand & gravel			Hmn-28	IM-353
The Gravel Co. 151 Seven Mile Ave. New Miami, OH 45011 513-761-4980 Roy B. Schweitzer, pres.	New Miami Pit (42)	Butler	sand & gravel	152,847	152,847	Br-3	IM-719
Green Basin Coal, Inc. Rte. 1 Box 49C Strasburg, OH 44680 216-343-5231 Tim Williams, pres.	Green Basin Coal, Inc. (169) (63) (103) (103)	Tuscarawas	limestone sandstone clay shale	3,605 22,895 120,400	3,605 22,895 120,400	Ts-2024	IM-1087
Green Oaks Potting Products, Inc. 2222 Lake Rockwell Rd. P.O. Box 979 Ravenna, OH 44266 216-296-2157 John A. Lyon, pres.	Green Oaks Potting Products, Inc. (7) (451)	Portage	peat sand & gravel	2,854 2,236	2,854 2,236	Pe-89	IM-1142
Gregory Materials Co. 14133 U.S. Rte. 23 N Waverly, OH 45690 614-947-5559 Ernest Gregory, owner	Plant #1 (254)	Pike	sand & gravel			Pke-30	IM-786
Gregory Stone Co., Inc. 3244 S. Davis Rd. Ludlow Falls, OH 45339 513-275-7455 William T. Gregory, Jr., pres.	Gregory Quarry (65)	Miami	limestone	334,700	334,700	Mi-16	IM-414
H. T. Griffin Excavating, Inc. Route 5 Box 217 Swanton, OH 43558 419-826-0230 Henry T. Griffin, owner	H. T. Griffin Excavating, Inc. (472)	Lucas	sand & gravel			Ls-G	IM-1090
Grimes Excavating Rte. 3 Box 121 New Matamores, OH 45767 614-865-2267 John Grimes, partner	Grimes Excavating (533)	Washington	sand & gravel			Wn-1008	IM-1111
Gwin Contracting Co. P.O. Box 205 Columbiana, OH 44408 216-482-2442 Lyle D. Gwin, pres.	Gwin Contracting Co. (30)	Mahoning	sandstone	7,961	7,961	Mg-62	IM-599
H & H Utilities Co. 7307 S. Kessler-Frederick Rd. West Milton, OH 45383 513-223-6752 Gerald Hochwalt, pres.	H & H Gravel (229)	Montgomery	sand & gravel			My-68	IM-646
J. M. Hamilton & Sons Co., Inc. 1974 Marion-Bucyrus Rd. Marion, OH 43302 614-382-2189 O. E. Hamilton, pres.	J. M. Hamilton & Sons Co., Inc. (59)	Marion	limestone	111,681	111,681	Mn-2	IM-423
Hardin Quarry Co., Inc. 12484 State Rte. 701 Kenton, OH 43326 419-675-1327 Richard Pees, pres.	Hardin Quarry Co., Inc. (38)	Hardin	limestone	142,413	142,413	Hdn-2	IM-443
Norman Harpster 16069 State Rte. 235 Belle Center, OH 43310 513-464-5623 Norman Harpster, owner	Norman Harpster (553)	Hardin	sand & gravel			Hdn-H	IM-864

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
Harrison Sand & Gravel Co. 10980 Campbell Rd. Harrison, OH 45030 513-637-5174 Donald Gauck, v. pres.	Harrison Sand & Gravel Co. (135)	Hamilton	sand & gravel	58,923	81,800	Hmn-17	IM-295
Haubeil & Sons Asphalt & Materials, Inc. 379 Seney Rd. Chillicothe, OH 45601 614-773-6358 George Haubeil, pres.	Haubeil & Sons Asphalt & Materials, Inc. (491)	Ross	sand & gravel	39,037	39,037	Rs-H	IM-1052
Haueter Sand & Gravel, Inc. P.O. Box 206 Chardon, OH 44024 216-286-9482 Donald H. Haueter, pres.	Haueter Sand & Gravel, Inc. (108) Haueter Sand & Gravel, Inc. (545)	Geauga Geauga	sand & gravel sand & gravel	190,932 9,000	190,932 9,000	Gea-29 Gea-H	IM-215 IM-510
Heiser Sand & Gravel P.O. Box 2491 North Canton, OH 44720 216-499-8201 Richard L. Heiser, owner	Heiser Sand & Gravel (323)	Stark	sand & gravel	27,081	17,219	Sk-688	IM-763
Paul N. Herdman P.O. Box 36 Lebanon, OH 45036 513-233-5555 Paul N. Herdman, pres.	Paul N. Herdman (429)	Warren	sand & gravel	1,200	1,200	Wan-46	IM-679, IM-842
Hillcrest Coal, Ltd. 190 S. Main St. Magnolia, OH 44643 216-866-9388 Kermit & Richard James, Jr., partners	Hillcrest Coal, Ltd. (102)	Stark	clay			Sk-HC	IM-1037
Hillsdale Sand & Gravel, Inc. P.O. Box 223 Archbold, OH 43502 419-445-1015 Dean Miller, pres.	Hillsdale Sand & Gravel, Inc. (82)	Defiance	sand & gravel	4,569	0	De-2	IM-765
Hilltop Aggregate, Inc. P.O. Box 362 Mogadore, OH 44260 216-644-3274 Robert W. West, pres.	Hilltop Aggregate, Inc. (262)	Portage	sand & gravel	387,457	387,457	Pe-56	IM-127
Hilltop Basic Resources, Inc. 630 Vine St. Cincinnati, OH 45202 513-878-8631 John Steele, Jr., pres.	Fairborn Aggregate Plant (112) West Carrollton Aggregate Plant (232)	Clark, Greene Montgomery	sand & gravel sand & gravel	459,542 703,632	361,806 482,129	Ge-4 My-19	IM-394 IM-401, IM-916
Hilltop Basic Resources, Inc. dba Enon Washed Sand & Gravel Co. 1665 Enon-Donnelsville Rd. P.O. Box 363 Enon, OH 45323 513-878-8631 John Steele, Jr., pres.	Enon Washed Sand & Gravel Co. (57)	Clark	sand & gravel	239,693	203,713	Ck-3	IM-463
Hocking Valley Concrete, Inc. 35255 Hocking Dr. Logan, OH 43138 614-385-2165 William G. Vaughn, pres.	Hocking Valley Concrete, Inc. (151)	Hocking	sand & gravel	75,000	75,000	Hg-262	IM-41
William A. Hoffman, Jr. 25043 State Rte. 104 Circleville, OH 43113 614-474-2002 William A. Hoffman, Jr., owner	Hoffman Pit (480)	Pickaway	sand & gravel	3,415	3,415	Pky-H	IM-1039
R. E. Holland Excavating, Inc. P.O. Box 68 Enon, OH 45323 513-864-1933 Robert E. Holland, pres.	Ed Umsted (566)	Pickaway	sand & gravel	42,386	42,386	Pky-HE	IM-1179

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
Tom Hollinger Excavating 2097 Hollansburg-Arcanum Rd. New Madison, OH 45346 513-996-5381 Thomas W. Hollinger, leasee	Hollinger Gravel Plant (81)	Darke	sand & gravel	236	194	Dke-10	IM-326
Holloway Sand & Gravel Co., Inc. P.O. Box 416 West Union, OH 45693 513-544-5524 Dan Holloway, pres.	Holloway Sand & Gravel Co., Inc. (173)	Adams	limestone	2,500	2,500	Ads-H	IM-805
Holmes Limestone Co. P.O. Box 295 Berlin, OH 44610 216-893-2721 Merle Mullet, pres.	241 Plant (44) (19) (19) Wayne Mines (45) (143) Bolivar Mine (76) Tusco (151)	Holmes Holmes, Wayne Stark Tuscarawas	limestone clay shale limestone clay clay shale	94,476 36,817 31,085 6,650 177 21,235	94,476 36,817 31,085 6,650 177 18,015	Hs-67 Hs-79 ⁶ Sk-235 Ts-H1	IM-3, IM-768 IM-656 IM-945 IM-927
Honey Creek Stone Co. P.O. Box 286 Petersburg, OH 44454 216-542-2372 Leo Verzilli, plant foreman	Honey Creek Stone Co. (56)	Mahoning	limestone	202,471	155,840	Mg-54	IM-93
Huck Farms 1162 S. Riverside Dr. McConnelsville, OH 43756 614-962-3467 Louis & Cecil Huck, partners	Huck Farms (241)	Morgan	sand & gravel			Mon-599	
Hugo Sand Co. 7055 State Rte. 43 Kent, OH 44240 216-673-4710 Dorothy M. Strohman, pres.	Hugo Sand Co. (264)	Portage	sand & gravel	249,748	249,748	Pe-10	IM-138
Humphrey Farms P.O. Box 128 Reedsville, OH 45772-0128 614-378-6295 C. Ed Humphrey, owner	Vivian Humphrey (210)	Meigs	sand & gravel	558	558	Ms-295	
Hutson Road Mining Co. 1200 W. South Range Rd. North Lima, OH 44452 216-549-5214 John Curatola, partner	Hutson Road Mining Co. (539)	Columbiana	sand & gravel			Ca-H	IM-634
Hydraulic Press Brick Co. 8900 Hemlock Rd. P.O. Box 31330 Independence, OH 44131 314-621-9306 W. W. Allen, Jr., pres.	Hydraulic Press Brick Co. (7)	Cuyahoga	shale	197,710	198,250	Cya-19	IM-95
Indian Creek Sand & Gravel Co. P.O. Box 330 Oxford, OH 45056 513-523-8805 Gaston Bowling, pres.	Indian Creek Sand & Gravel Co. (37)	Butler	sand & gravel	3,803	3,803	Br-40	IM-493
J & A Excavating 4130 Flatfoot Rd. Cable, OH 43009 513-652-3504 John Holbrook, owner	J & A Excavating (513)	Champaign	sand & gravel			Cpn-J	IM-1133
J. P. Sand & Gravel Co. 5911 Lockbourne Rd. P.O. Box 2 Lockbourne, OH 43137 614-497-0083 Richard A. Roberts, pres.	J. P. Sand & Gravel Co. (98)	Franklin	sand & gravel	488,296	488,296	Fn-52	IM-191
Janson's Soil Service, Inc. 1492 Mechanicsville Rd. Rock Creek, OH 44084 216-466-3835 Peter E. Janson, Jr., pres.	Janson's Soil Service, Inc. (10) (82) (82)	Ashtabula	sand & gravel clay shale			Asa-14	IM-563

⁶All sales and production are from Wayne County.

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
Jarrett Sand Co. 6505 Skadden Rd. Sandusky, OH 44870 419-359-1750 James Jarrett, owner	Jarrett Sand Co. (84)	Erie	sand & gravel	6,006	6,006	Ee-29	
Jaymar, Inc. 8751 N. State Route 7 Cheshire, OH 45620 614-992-6637 Jay Hall, Jr., pres.	Jaymar, Inc. (544)	Gallia	sand & gravel	101,072	101,072	Ga-J	IM-1145
Jefferson Materials Co. 8505 State Rte. 14 Streetsboro, OH 44241 216-626-3816 John E. Lower, pres.	Howitt (265)	Portage	sand & gravel	240,874	236,695	Pe-63	IM-82
Jimisco, Inc. 1577 West River Rd. Dayton, OH 45418 513-268-0044 James T. McDonald & H. A. Scott, partners	Taylorville Rd. Hardfill (236)	Montgomery	sand & gravel	1,750	1,750	My-55	IM-571
Johnson Rd. Sand & Gravel, Inc. P.O. Box 971 Kent, OH 44240 216-677-5737 Robert K. Heimann, pres.	Johnson Rd. Sand & Gravel, Inc. (484)	Portage	sand & gravel	23,027	23,027	Pe-J	IM-1099
John E. Jones Construction Co. 1892 U.S. Route 52 Moscow, OH 45153 513-553-3370 John E. Jones, pres.	John E. Jones Construction Co. (537)	Clermont	sand & gravel	11,123	11,123	Ct-11	IM-665
Jones Sand & Gravel Co. 1516 Timken Rd. Wooster, OH 44691 216-264-1070 Gerald R. & James R. Jones, owners	Jones Sand & Gravel Co. (470)	Holmes	sand & gravel			Hs-J	IM-1043
Joseph Sand & Gravel, Inc. Rte. 6 Boundary Rd. Wapakoneta, OH 45895 419-568-3787 Ralph L. Joseph, owner	Joseph Sand & Gravel, Inc. (23)	Auglaize	sand & gravel	7,092	7,092	Ae-23	IM-508
K.C.C.I. P.O. Box 24 Morristown, OH 43759 614-782-1087 George Krulock, pres.	Apex (176)	Jefferson, Harrison	limestone			Jfn-K	IM-1164
R. G. Karg Development Co. 75 Parker Lane Tallmadge, OH 44278 216-633-0470 Richard G. Karg, pres.	R. G. Karg Development Co. (567)	Portage	sand & gravel			Pe-K	IM-1148
Karg Sand & Gravel Co. 2088 Congress Lake Rd. Mogadore, OH 44260 216-673-1338 Thomas R. Karg, owner	Karg Sand & Gravel Co. (266)	Portage	sand & gravel	18,950	18,950	Pe-83	IM-179
Keener Sand & Clay Co. 330 Dering Ave. Columbus, OH 43207 614-444-1105 Carl F. Weiffenbach, pres.	Huron Plant (85)	Erie	sand & gravel	1,036	1,036	Ee-5	
Keeney Sand & Stone, Inc. 13320 Girdled Rd. Painesville, OH 44077 216-254-4582 Dennis Keeney, pres.	Keeney Sand & Stone, Inc. (60)	Lake	sandstone	40,602	40,602	Lke-K	IM-859

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
Kellstone, Inc. 6705 Richmond Rd. Glenwillow, OH 44139 216-439-3555 James A. Palladino, pres.	Kellstone, Inc. (174)	Erie	limestone	559,541	559,541	Ee-K	IM-727
Kieco Sand & Shale P.O. Box 77 Moxahala, OH 43761 614-342-1594 William Kiener, owner	Kieco Sand & Shale (61) (149)	Perry	sandstone shale			Py-K	IM-851
Kilbarger Construction, Inc. P.O. Box 946 Logan, OH 43138 614-385-6019 Edward Kilbarger, pres.	Kilbarger Construction, Inc. (523)	Hocking	sand & gravel	2,385	2,385	Hg-329	IM-1112
Kimble Clay & Limestone Co. Rte. 1 Box 386 Dover, OH 44622 216-343-1226 Floyd E. Kimble, owner	Kimble Clay & Limestone Co. (117) (41) (63) (63)	Tuscarawas	limestone sandstone clay shale	103,323 610 270,178 332,401	103,323 610 270,178 332,401	Ts-1818	IM-9
King Limestone, Inc. 53681 Spencer Rd. Cumberland, OH 43732 614-638-3942 Duane King, pres.	King Limestone, Inc. (147)	Guernsey, Muskingum	limestone	210,553	210,553	Gy-309	IM-1030
Kinsman Sand & Gravel Co. P.O. Box 79 Kinsman, OH 44428 216-293-5400 Glenn B. Harnett, pres.	Kinsman Sand & Gravel Co. (11)	Ashtabula	sand & gravel	111,257	66,000	Asa-17	IM-886
Kipp's Gravel Co., Inc. 4987 State Rte. 222 Batavia, OH 45103 513-732-1024 Melvin M. Kipp, pres.	Kipp's Gravel Co., Inc. (61)	Clermont	sand & gravel	144,858	144,858	Ct-7	IM-432
Kirby's Sand & Gravel, Inc. 4876 County Hwy. 43 Upper Sandusky, OH 43351 419-927-2260 Noble A. Kirby, owner	Kirby's Sand & Gravel, Inc. (382) Kirby's Sand & Gravel, Inc. (591)	Wyandot Wyandot	sand & gravel sand & gravel	48,992	48,992	Wt-17 Wt-K	IM-604 IM-943
Kleese Development Associates, Inc. 45 North Rd. Niles, OH 44446 216-652-5991 Robert Kleese, pres.	Kleese Development Associates, Inc. (499)	Trumbull	sand & gravel			Tl-K	IM-1101
Board of Knox County Commissioners 110 East High St. Mt. Vernon, OH 43050 216-397-1590 Gary J. Durbin, engineer	Board of Knox County Commissioners (148)	Knox	shale	4,352	4,352	Kx-K	IM-870
Kosmos Cement Co. 15301 Dixie Highway P.O. Box 72319 Louisville, KY 40272 502-935-7331 James D. Parker, mgr.	Bear Run (30)	Lawrence	shale			Le-308	IM-31
Edward Kraemer & Sons, Inc. Bolander Rd. P.O. Box 55 Clay Center, OH 43408 419-855-8388 David R. Kraemer, pres.	White Rock Quarry (82)	Ottawa	limestone	82,664	82,664	Oa-67	IM-296
T & K Kuhnle Co. P.O. Box 375 Newbury, OH 44065 216-626-4400 Thomas Kuhnle, pres.	T & K Kuhnle Co. (518)	Geauga	sand & gravel			Gea-TK	IM-902

⁷This mine was operated 1st quarter 1992 by Edward Kraemer & Sons, Inc., and 2nd through 4th quarters by White Rock Quarry, L.P.

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
L & I Natural Resources, Inc. 10369 Cones Rd. Loveland, OH 45140 513-683-2045 Alvin Walker, pres.	L & I Pit & Mill (430)	Warren	sand & gravel	138,392	138,392	Wan-50	IM-1006
L. & M. Excavators, Inc. 6075 Cleveland Ave. #205 Columbus, OH 43231 614-895-1056 Charles L. Lewis, pres.	Westerville Industrial Park (99)	Franklin	sand & gravel	4,311	4,311	Fn-54	IM-847
L & M Mineral Co. 5205 State Rte. 39 Star Route Millersburg, OH 44654 216-893-2227 John E. Ling, Jr., pres.	Evans (64) Luikert (65) Spring (170) (55) (77) (77)	Tuscarawas Tuscarawas Tuscarawas	shale clay limestone sandstone clay shale	38,573 1,638 21,325	38,573 2,983 21,325	Ts-1884 Ts-1914 Ts-1982	IM-6 D-0701 IM-621
Lafarge Corp. Great Lakes Region P.O. Box 160 Paulding, OH 45879 419-399-4861 Michael Rose, pres.	Paulding Quarry (87) (42)	Paulding	limestone clay	1,058,207 300,781	1,058,207 300,781	Pg-1	IM-513
Lake Hope Asphalt, Inc. P.O. Box 38 Nelsonville, OH 45764 614-753-1005 Francis Efaw, pres.	Lake Hope Asphalt, Inc. (21)	Athens	sand & gravel	26,492	32,333	As-1161	IM-97
Lakeland Construction 65105 Old Rte. 800 Barnesville, OH 43713 614-425-1816 Tim Hall, mgr.	Lakeland Construction (151)	Belmont	limestone	13,590	13,590	Bt-1192 ^a	IM-1093
Lakeside Sand & Gravel Co. 3431 Frost Rd. Mantua, OH 44255-9444 216-274-2569 Larry Kotkowski, partner	Lakeside Sand & Gravel Co. (268)	Portage	sand & gravel	241,597	212,435	Pe-40	IM-190
Lancaster Sand & Gravel Co. 3232 Logan-Lancaster Rd. SE Lancaster, OH 43130 614-687-4420 Jerry Mock, foreman	Lancaster Sand & Gravel Co. (92)	Fairfield	sand & gravel	592,266	532,867	Fd-13	IM-848
Larkin Sewer Contractors, Inc. Rte. 3, Box 3932 New Philadelphia, OH 44663 216-339-1289 Thomas E. Larkin, pres.	Larkin Sewer Contractors, Inc. (531)	Tuscarawas	sand & gravel	11,431	19,714	Ts-L	IM-1125
Latham Limestone, Inc. P.O. Box 77 Latham, OH 45646 614-493-2677 Robert Murray, pres.	Latham Limestone, Inc. (91)	Pike	limestone	192,643	217,519	Pke-13	IM-213
Lazy Acre Farms, Inc. 1030 Forest Ave. Zanesville, OH 43701 614-453-1003 Clarence M. Parsons, owner	Lazy Acre Farms, Inc. (396)	Muskingum	sand & gravel	31,856	31,856	Mum-261	IM-957
Bertha A. Leonard 6539 River Rd. Harrison, OH 45030 513-738-4194 Bertha A. Leonard, owner	Bertha A. Leonard (137)	Hamilton	sand & gravel	400	200	Hmn-67	IM-529
Lerkis Asphalt Co., Inc. & Subsidiary 550 Dan St. Akron, OH 44310 216-376-7560 Gus J. Lerkis, pres.	Minor Rd. Plant (328) Lerkis Asphalt Co., Inc. & Subsidiary (498)	Summit Summit	sand & gravel sand & gravel	100	100	St-39 St-L	IM-983 IM-1027

^aThis mine was operated 1st quarter 1992 by Lakeland Construction, and 2nd through 4th quarters by Black Gold Recovery, Inc.

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
Letart Corp. P.O. Box 430 Gallipolis Ferry, WV 25515-0430 305-675-7516 Jon Thompson, pres.	Letart Corp. (559) Letart Corp. (560)	Meigs Meigs	sand & gravel sand & gravel			Ms-L Ms-LC	IM-1159 IM-1174
Carroll Lifer Excavating, Inc. P.O. Box 308 Bellville, OH 44813 419-886-2548 Ralph W. Robinson, pres.	Honey Creek Sand & Gravel (489)	Richland	sand & gravel	173	173	Rd-L	IM-1086
Lingvai Peat Co. R.R. 2 01693 Rd. 8 Edgerton, OH 43517 419-298-2058 Ronald Lingvai, mgr.	Lingvai Peat Co. (4)	Williams	peat	69	0	Ws-17	
London Tile Co. 65 Walnut St. New London, OH 44851 419-929-1551 R. N. Danison, pres.	Biglow (1)	Ashland	shale	1,244	1,244	Ald-1	IM-334
Loxley Aggregates, Inc. 4277 Falls Rd. Lewisburg, OH 45338 513-839-5488 Matthew L. Loxley, pres.	Loxley Aggregates, Inc. (488) (101)	Preble	sand & gravel clay	12,203	10,310	Pre-9	IM-1095
Luburgh, Inc. 4090 East Pike Zanesville, OH 43701 614-453-9003 Otto Luburgh, owner	Luburgh Sand Pit (410)	Muskingum	sand & gravel	15,525	15,525	Mum-267	IM-914
Lucky Sand & Gravel Co. 12018 Frost Rd. Mantua, OH 44255 216-562-6196 Bernard Udelson, pres.	Lucky Sand & Gravel Co. (570)	Portage	sand & gravel	150,784	150,784	Pe-L	IM-154
Ludowici-Celadon Co. P.O. Box 69 New Lexington, OH 43764 614-342-1995 Edward Ryser, pres.	Donnelly Pit (46)	Perry	shale			Py-212	IM-58
M. & G. Supply Co. 7522 Wales Rd. North Canton, OH 44720 216-499-8473 Gary R. Ross, pres.	Chapel Hill Sand & Gravel (497)	Summit	sand & gravel	3,676	3,676	St-56	IM-1073
M & J Sand & Gravel, Inc. 406 Juliana St. Parkersburg, WV 26101 304-375-9939 Gale Wilson, pres.	M & J Sand & Gravel, Inc. (590) (152)	Washington	sand & gravel shale	3,186	3,186	Wn-M	IM-1163
M & M Builders Supply Co. 5820 Carbon Hill Rd. East Palestine, OH 44413 216-426-9958 Hugh Madden, owner	M & M Builders Supply Co. (47) (106) (106)	Columbiana	sandstone clay shale			Ca-970	IM-1024
M & M Operating 305 Lighthouse Point S.E. New Philadelphia, OH 44663 216-339-4987 Michael Murray, pres.	M & M Operating (142)	Tuscarawas	clay			Ts-MMO	IM-1166
MacRitchie Materials, Inc. P.O. Box 90 West Millgrove, OH 43467 419-288-2790 Donald B. MacRitchie, pres.	MacRitchie Materials, Inc. (130)	Wood	limestone	249,027	249,027	Wd-1	IM-548

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
Maple Grove Stone Co. dba M & B Asphalt Co. P.O. Box 456 Tiffin, OH 44883 419-992-4235 Tim Bell, pres.	Maple Grove Stone Co. (106)	Seneca	limestone	63,780	63,780	Sa-2	IM-352
Marshall Quarry, Inc. 11199 State Rte. 124 Hillsboro, OH 45133 513-466-2636 Ronald M. Main, pres.	Marshall Quarry, Inc. (43)	Highland	limestone	5,068	5,068	Hd-4	IM-406
Donald Martin Contracting 1875 Roxanna-New Burlington Rd. Waynesville, OH 45068 513-862-4182 Roger J. Martin, owner	Donald Martin Contracting (403)	Greene	sand & gravel	557	557	Ge-40	IM-923
Martin Marietta Magnesia Specialties, Inc. Executive Plaza II Hunt Valley, MD 21030 301-527-3915 Steve Zelnak, pres.	Woodville Quarry (102)	Sandusky	limestone	2,594,984	2,594,984	Sy-1	IM-537
Mason's Sand & Gravel Co. 2385 Rathmell Rd. Columbus, OH 43207 614-491-3611 Gordon Masteller, pres.	Mason's Sand & Gravel Co. (100)	Franklin	sand & gravel	82,610	82,610	Fn-11	IM-234
Massillon Materials, Inc. 26 N. Cochran St. P.O. Box 499 Dalton, OH 44618 216-828-8420 Howard J. Wenger, pres.	Massillon Materials, Inc. (495) Massillon Materials, Inc. (580)	Stark Stark	sand & gravel sand & gravel	153,017 172,070	153,017 172,070	Sk-M Sk-MM	IM-1031 IM-752
Massillon Washed Gravel Co. 6331 Blough Ave. SW P.O. Box 167 Navarre, OH 44662 216-879-2132 Thomas E. Thomas, pres.	Massillon Washed Gravel Co. (325) Massillon Washed Gravel Co. (578)	Stark Stark	sand & gravel sand & gravel	256,034	256,034	Sk-607 Sk-MW	IM-102 IM-1171
Maumee Haulers & Excavating, Inc. P.O. Box 107 Monclova, OH 43542 419-866-0400 Ike Parker, Jr., pres.	Eber Rd. Pit (422)	Lucas	sand & gravel	35,311	35,311	Ls-26	IM-1016
Maxville Quarries, Inc. 7957 State Rte. 668 S Logan, OH 43138 614-385-7087 David J. McCort, pres.	Maxville Quarries, Inc. (89) Maxville Quarries, Inc. (168)	Perry Perry	limestone limestone	192,784 37,816	186,147 37,757	Py-235 Py-343	IM-11, IM-515 IM-1061
McCarthy Stone Quarry 6326 County Rd. 61 Upper Sandusky, OH 43351 419-294-2611 Charles H. McCarthy, owner	McCarthy Stone Quarry (133)	Wyandot	limestone	112,066	112,066	Wt-3	IM-298
David McCourt Mining Co. R.D. #1 Irondale, OH 43932 614-768-2260 David McCourt, owner	David McCourt Mining Co. (131)	Columbiana	clay			Ca-DM	IM-919
Bill McKeever Excavating 207 Bloomfield Ave. Urbana, OH 43078 513-652-1898 Bill McKeever, owner	Bill McKeever Excavating (536)	Champaign	sand & gravel	654	654	Cpn-M	IM-1167
Mead Corp. P.O. Box 2500 Chillicothe, OH 45601 614-772-3111 Don A. Russell, v. pres. operations	Depot Landfill Closure Pit (572) (140)	Ross	sand & gravel clay	219,000	219,000	Rs-M1	IM-1152

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
Mecco, Inc. 2504 S. Main St. Middletown, OH 45042 513-422-3651 David T. Morgan, pres.	Mecco, Inc. (39)	Butler	sand & gravel	123,223	123,223	Br-15	IM-316
Mechanicsburg Sand & Gravel, Inc. P.O. Box 18 Mechanicsburg, OH 43044 513-834-2606 John D. Cushman, pres.	Mechanicsburg Sand & Gravel, Inc. (50)	Champaign	sand & gravel	175,343	161,385	Cpn-22	IM-889
Meigs County Commissioners Rte. 2 Rocksprings Rd. Pomeroy, OH 45769 614-992-2911 David H. Spencer, office mgr.	Meigs County Pit (211)	Meigs	sand & gravel	18,720	18,720	Ms-301	IM-619
Melvin Stone Co. 228 Melvin Rd. Wilmington, OH 45177 513-584-2486 Craig Beam, pres.	Melvin Stone Co. (17) Melvin Stone Co. (28) Melvin Stone Co. (92)	Clinton Fayette Pickaway	limestone limestone limestone	1,022,112 153,101 253,751	1,022,112 153,101 253,751	Cln-1 Fe-1 Pky-4	IM-241 IM-831 IM-209
Menuet Bros. Sand & Gravel, Inc. 5366 County Rd. 349 Rte. 1 Millersburg, OH 44654 216-674-4254 Gene Menuet, pres.	Fair Pit (153)	Holmes	sand & gravel	252,824	252,824	Hs-82	IM-707
Mesenburg Bros., Inc. R.D. 1 Collins, OH 44826 419-668-5691 Peter J. Mesenburg, pres.	Mesenburg Bros., Inc. (86) Mesenburg Bros., Inc. (20)	Erie Huron	sand & gravel sandstone	8,954 51,213	8,954 51,213	Ee-24 Hrn-8	IM-915 IM-268
Miami River Stone Co. 1556 Miami River Rd. Sidney, OH 45365 513-492-5412 Bradley Comer, pres.	Miami River Stone Co. (110) Miami River Stone Co. (311)	Shelby Shelby	limestone sand & gravel	240,730	241,419	Shy-6 Shy-17	IM-389 IM-389
Mickley Gravel Co. P.O. Box J Danville, OH 43014 614-599-7870 Paul A. Mickley, owner	Mickley Gravel Co. (162)	Knox	sand & gravel	1,797	657	Kx-5	IM-884
Midwest Portland Cement Corp. P.O. Box 1531 Zanesville, OH 43701 614-849-2311 John Gilliland, plant mgr.	Lyle Quarry (76) (112) Midwest Portland Cement Corp. (39)	Muskingum Muskingum	limestone shale shale	473,810 23,314	473,810 23,314	Mum-24 Mum-C	IM-830 IM-303
Miller Bros. Construction, Inc. Rte. 1 Box 30 Archbold, OH 43502 419-445-1015 Dale Miller, pres.	Miller Bros. Construction, Inc. (526)	Logan	sand & gravel			Lgn-M	IM-799
Miller Bros. Gravel, Inc. 7900 S. Kessler-Frederick Rd. Tipp City, OH 45371 513-698-7204 Thomas O. Miller, pres.	Miller Bros. Gravel, Inc. (233)	Montgomery	sand & gravel	249,836	218,402	My-52	IM-348
H. M. Miller Construction Co. P.O. Box 131 Mogadore, OH 44260 216-628-4811 J. C. Smith, pres.	Krumroy Pit (330)	Summit	sand & gravel			St-46	IM-557
Miller Sand & Gravel Co. 10228 State Rte. 82 Windham, OH 44288 216-326-3157 Donald M. Miller, owner	Miller Sand & Gravel Co. (272)	Portage	sand & gravel	2,615	2,615	Pe-39	IM-174
Miller Sand Co. 5003 Bellevue-Castalia Rd. Castalia, OH 44824 419-684-7328 Todd C. Miller, owner	Miller Sand Co. (87)	Erie	sand & gravel	5,652	5,652	Ee-28	IM-601

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
Mitchell Transport, Inc. 35746 Lake Shore Blvd. Eastlake, OH 44094 216-942-9191 Robert Amos, pres.	North Park Ash Reclamation Center (92)	Lake	clay	2,618	2,618	Lke-M	IM-1059
Mohican Organic Products, Inc. Rte. 1, 47 Milligan Rd. Lucas, OH 44843 419-892-2212 Farley & Joyce Amos, owners	Mohican Pit (1)	Ashland	peat			Ald-13	
Moore's Excavating Co. 2222 N. State Rte. 68 Urbana, OH 43078 513-653-6288 Ralph Moore, owner	Moore's Excavating Co. (51)	Champaign	sand & gravel	65,046	64,914	Cpn-20	IM-482
Morrow Gravel Co. 11641 Mosteller Rd. Cincinnati, OH 45241 513-771-0820 James P. Jurgensen, pres.	Morrow Gravel Co. (501) Morrow Gravel Co. (502) Morrow Gravel Co. (503)	Warren Warren Warren	sand & gravel sand & gravel sand & gravel	382,500 2,500	382,500 2,500	Wan-M Wan-M1 Wan-M2	IM-728, IM-1065 IM-1051 IM-837
Morton International, Inc. Morton Salt Division P.O. Box 428 Grand River, OH 44045-0428 216-354-9901 Richard L. Wilson, plant mgr.	Fairport Mine (2)	Lake	salt	469,587	588,590	Lke-6	
Morton International, Inc. Morton Salt Division 151 S. Industrial St. P.O. Box 337 Rittman, OH 44270-0337 216-925-3015 Charles S. Locke, CEO	Morton Salt Well Field (5)	Wayne	salt	483,555	502,056	We-9129	
Muskingum River Gravel Co. P.O. Box 1585 Zanesville, OH 43702-1585 614-453-0624 Larry E. Young, v. pres.	Muskingum River Gravel Co. (152) Muskingum River Gravel Co. (247) Muskingum River Gravel Co. (448) Muskingum River Gravel Co. (452) Plant #2 (367)	Hocking Muskingum Muskingum Ross Washington	sand & gravel sand & gravel sand & gravel sand & gravel sand & gravel	85,000 100,000 200,000 12,750	85,000 100,000 200,000 12,750	Hg-301 Mum-228 Mum-262 Rs-M Wn-38	IM-458 IM-421 IM-422 IM-114 IM-701
National Aggregate, Inc. P.O. Box 340 Malvern, OH 44644 216-863-1955 Bill Sheckler, pres.	National Aggregate, Inc. (512)	Carroll	sand & gravel	162,053	147,391	Cl-N	IM-641
National Lime & Stone Co. P.O. Box 120 Findlay, OH 45839-0120 419-422-4341 R. W. Kruse, v. pres.	Lima Plant (5) Lima Plant (6) Buckland Plant (11) Wapakoneta Plant (24) Bucyrus Plant (18) Delaware Plant (21) Findlay Plant (149) Marion Plant (60) Carey Plant (134) Upper Sandusky Plant (380) Upper Sandusky Plant (380) Upper Sandusky Plant (381)	Allen Allen Auglaize Auglaize Crawford Delaware Hancock Marion Wyandot Wyandot Wyandot Wyandot	limestone limestone limestone sand & gravel limestone limestone limestone limestone limestone sand & gravel sand & gravel sand & gravel	1,156,616 9 314,559 211,023 1,035,845 1,428,412 984,705 508,694 2,783,115 10 139,999 10	1,088,900 305,787 248,923 1,042,899 1,426,574 1,001,090 510,650 2,733,417 182,681	An-3 An-11 Ae-10 Ae-30 Cd-1 Del-5 Hk-7 Mn-3 Wt-1 Wt-5 Wt-15 Wt-18	IM-484 IM-541 IM-486 IM-598 IM-404 IM-207 IM-1002 IM-168 IM-405 IM-376 IM-376 IM-551
Neer's Sand & Gravel 4859 Twp. Rd. 45 Bellefontaine, OH 43311 513-585-6733 Arden J. Neer, Sr., owner	Neer's Sand & Gravel (189)	Logan	sand & gravel	129,704	127,435	Lgn-6	IM-459
Nelson Sand & Gravel, Inc. P.O. Box 31 Kingsville, OH 44048 216-224-0198 Thomas H. Nelson, pres.	Nelson Sand & Gravel, Inc. (14) Nelson Sand & Gravel, Inc. (510)	Ashtabula Ashtabula	sand & gravel sand & gravel	10,450	10,450	Asa-12 Asa-N	IM-1130 IM-1109

⁹All sales and production are reported under An-3.¹⁰All sales and production are reported under Wt-15.

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
Newbury Sand & Gravel 15365 Ravenna Rd. Burton, OH 44021 216-834-8500 Blaine M. Kaufman, owner	Newbury Sand & Gravel (517) (50)	Geauga	sand & gravel sandstone	215 390	215 390	Gea-N	IM-1123
New Carlisle Sand & Gravel Co. 6090 S. Scarff Rd. New Carlisle, OH 45344 513-845-0696 Willard Lee Upton, owner	New Carlisle Sand & Gravel Co. (217)	Miami	sand & gravel	469	469	Mi-501	
New Generations, Inc. 37985 State Rte. 344 Leetonia, OH 44431 216-482-0137 Glen D. Kelly, pres.	Schell (463)	Columbiana	sand & gravel	8,410	8,410	Ca-982	IM-1108
Newton Asphalt P.O. Box 86 Strasburg, OH 44680 216-878-5648 G. A. Gessner & C. T. Newton, partners	516 (428)	Tuscarawas	sand & gravel	82,570	82,570	Ts-2001	IM-1004
Nick's Trucking 14228 Madison Rd. Middlefield, OH 44062 216-632-1949 Nick R. Loze, owner	Nick's Trucking (584)	Trumbull	sand & gravel	500	500	TL-N	IM-1158
Northern Ohio Materials, Inc. 8300 State Rte. 14 Streetsboro, OH 44241 216-626-5577 Roger Schuck, operations mgr.	Northern Ohio Materials, Inc. (273)	Portage	sand & gravel	298,984	298,984	Pe-85	IM-700
Northern Ohio Paving Co. 1750 Highland Rd. Twinsburg, OH 44087 216-425-7861 Walter H. Edwards, pres.	Northern Ohio Paving Co. (316)	Stark	sand & gravel	216,787	216,787	Sk-N	IM-156
Northmont Sand & Gravel Co. P.O. Box 185 Englewood, OH 45322 513-836-1998 Robert D. Eyre, pres.	Northmont Sand & Gravel Co. (235)	Montgomery	sand & gravel	77,634	0	My-49	IM-370
North Ridge Materials 3052 E. Center St. P.O. Box 599 North Kingsville, OH 44068 216-224-1009 Joseph E. Simak, pres.	North Ridge Materials (413)	Ashtabula	sand & gravel	8,216	8,216	Asa-18 ¹¹	IM-949
North Shore Stone Quarries, Inc. 72 Fernhill Ave. Columbus, OH 43228 614-878-3628 Clifford Hammond, pres.	North Shore Stone Quarries, Inc. (109)	Seneca	limestone	7,358	7,358	Sa-8	IM-313
Northwood Stone & Asphalt Co. 1558 County Rd. 105 Belle Center, OH 43310 513-464-3833 Don E. Mill, pres.	Northwood Stone & Asphalt Co. (51) Rockhold Division (119)	Logan Union	limestone limestone	165,729 120,117	226,058 127,550	Lgn-2 Un-1	IM-494 IM-208
Nutter Bros. Coal Co., Inc. P.O. Box 248 New Straitsville, OH 43766 614-394-2681 James P. Nutter, pres.	Nutter Bros. Coal Co., Inc. (98)	Perry	clay	44,199	44,199	Py-N	IM-1097
Carl E. Oeder & Sons Sand & Gravel 3890 Turtlecreek Rd. Lebanon, OH 45036 513-494-1238 Carl E. Oeder, pres.	Carl E. Oeder & Sons Sand & Gravel (352)	Warren	sand & gravel	379,537	379,537	Wan-41 ¹²	IM-629

¹¹This mine was operated 1st quarter 1992 by North Ridge Materials, and 2nd through 4th quarters by Simak Trucking, Inc.¹²See also Dravo Basic Materials Co., Inc.

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
Ohio Asphaltic Limestone Corp. 8591 Mad River Rd. Hillsboro, OH 45133 513-364-2191 W. C. Mason, pres.	Ohio Asphaltic Limestone Corp. (42)	Highland	limestone	280,829	230,632	Hd-3	IM-253
Olen Corp. 4755 S. High St. Columbus, OH 43207-4028 614-491-1515 Wayne Rayburn, pres.	Hilliard Plant #1 (102) (154) Columbus Plant #3 (465) Fredericktown Plant #2 (161) Olen Corp. (555)	Franklin Franklin Knox Knox	sand & gravel limestone sand & gravel sand & gravel sand & gravel	116,890 439,049 1,669,052 372,742	156,162 351,205 1,739,293 434,924	Fn-43 Fn-58 Kx-16 Kx-OC	IM-188 IM-1023 IM-793 IM-930
Oneida Sand & Gravel, Inc. 8000 Blade Rd. NW Malvern, OH 44644 216-343-6831 Louis H. Smitley, pres.	Oneida Sand & Gravel, Inc. (47)	Carroll	sand & gravel	69,605	84,730	Cl-204	IM-554
Osborne Materials Co. P.O. Box 248 Grand River, OH 44045-0248 216-357-5562 Harold T. Larned, pres.	Osborne Materials Co. (2)	Lake Erie	sand & gravel (dredged)	126,923	126,923	Lke-D	
Oster Sand & Gravel, Inc. 5947 Whippel Ave. NW North Canton, OH 44720-7692 216-494-5472 Marlene K. Oster, pres.	Massillon Plant (326) Bolivar Plant (342) Oster Sand & Gravel, Inc. (586)	Stark Tuscarawas Tuscarawas	sand & gravel sand & gravel sand & gravel	474,262 103,222	474,262 103,222	Sk-165 Ts-1852 Ts-O	IM-192, IM-781 IM-75 IM-1155
Ours Sand & Gravel 20444 State Rte. 7 South Crown City, OH 45623 614-256-1378 Donald & Gloria Ours, owners	Ours Sand & Gravel (466)	Gallia	sand & gravel	4,465	4,465	Ga-O	IM-1028
P & D. Sons, Inc. P.O. Box 163 Oak Hill, OH 45656 614-682-7769 Paul D. Cherrington, Jr., pres.	P & D. Sons, Inc. (575)	Ross	sand & gravel			Rs-P	IM-122
R. H. Penick Co. 1504 Blue Jay Rd. Heath, OH 43056 614-323-3040 R. H. Penick, owner	R. H. Penick Co. (3)	Licking	salt	9,506	9,506	Lg-45	
Penn Eagle Coal Corp. P.O. Box 151 Wellsburg, WV 26070 304-737-0696 Alan K. Worthley, pres.	B & S Mine (554) (59) (133)	Jefferson	sand & gravel sandstone clay	28 3,867	28 3,867	Jfn-PE	IM-1162
Perry Stone Co. P.O. Box 176 Radnor, OH 43066 614-595-3373 Walter P. Penry, pres.	Perry Stone Co. (23) Perry Stone Co. (198)	Delaware Marion	limestone sand & gravel	217,519 31,930	217,519 31,930	Del-2 Mn-4	IM-299 IM-290
Petersburg Stone Co. 5886 E. Pine Lake Rd. Petersburg, OH 44454 216-542-0033 George Pappas, owner	Petersburg Stone Co. (476) (161)	Mahoning	sand & gravel limestone	20,882	20,882	Mg-629	IM-1008
Phillips Sand & Gravel U.S. Rte. 35 Box 187 Alpha, OH 45301 513-426-5461 George E. Phillips, pres.	Phillips Sand & Gravel (115)	Greene	sand & gravel	389,622	389,622	Ge-36	IM-305
Piqua Materials, Inc. Piqua Minerals Division 1750 W. Statler Rd. Piqua, OH 45356 513-773-4824 Albert R. Donovan, mgr.	Piqua Minerals Division (64)	Miami	limestone	314,218	322,950	Mi-1	IM-382
C. F. Poeppelman, Inc. 4755 N. State Rte. 721 Bradford, OH 45308 513-448-2191 James Poeppelman, pres.	C. F. Poeppelman, Inc. (67)	Miami	limestone	227,126	227,126	Mi-10	IM-335

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
Portage Lakes Sand & Gravel Co. 2800 N. Turkeyfoot Rd. Akron, OH 44319 216-644-2285 Douglas K. Rennick, pres.	Portage Lakes Sand & Gravel Co. (384)	Summit	sand & gravel	191,717	191,717	St-53	IM-874
Prairie Lane Sand & Gravel Co. 4401 Prairie Lane Rd. Wooster, OH 44691 216-262-6821 Ralph W. Miller, Jr., pres.	Prairie Lane Sand & Gravel Co. (372)	Wayne	sand & gravel	149,193	149,193	We-11	IM-547
Precision Aggregate, Inc. 12205 E. Gypsy Lane Rd. Bowling Green, OH 43402 419-352-4681 Randy G. Schmeltz, pres.	Precision Aggregate, Inc. (183) Precision Aggregate, Inc. (379)	Wood Wyandot	limestone sand & gravel	93,012	122,177	Wd-P Wt-4	IM-1157 IM-520
Puskarich Limestone, Inc. P.O. Box 207 Sherrodsville, OH 44675 614-269-3481 Nick Puskarich, pres.	Harlem Springs (15)	Carroll	limestone			Cl-183	IM-7
Putnam Stone Co. R.R. 1, 7053 Road M Ottawa, OH 45875-9754 419-523-6004 James E. Shroyer, pres.	Putnam Stone Co. (98)	Putnam	limestone	258,346	262,309	Pm-2	IM-570
Quality Ready Mix, Inc. R.R. 5 Wapakoneta, OH 45895 419-738-2817 Robert E. Hirschfeld, pres.	Quality Pit (25)	Auglaize	sand & gravel	59,776	146,696	Ae-16	IM-595
Quality Stone Co. 8751 N. State Rte. 7 Cheshire, OH 45620 614-992-6637 Jay Hall, Jr., pres.	Quality Stone Co. (148) Route 32 (182)	Vinton Vinton	limestone limestone	203,438 149,792	203,438 149,792	Vn-190 Vn-193	D-0761
Quarry Trails 7500 S. Cassel Rd. P.O. Box 520 Vandalia, OH 45377 513-667-4431 John E. Moyer, Jr., co-owner	Quarry Trails (178)	Montgomery	limestone	635	635	My-Q	IM-860
R & S, Inc. 7522 Wales Rd. NW North Canton, OH 44720 216-499-1024 Garry R. Ross, pres.	Copley Sand & Gravel (427)	Summit	sand & gravel	43,570	43,570	St-54	IM-934
Rack Sand, Inc. 5175 Este Ave. Cincinnati, OH 45232 513-242-5052 Roy Schweitzer, owner	Rack Sand, Inc. (139)	Hamilton	sand & gravel	95,680	95,680	Hmn-10	IM-226
Rainbow Sand & Gravel, Inc. 9500 Elliman Rd. Mantua, OH 44255 216-562-4701 Bernard Udelson & Jeremy Samson, owners	Rainbow Sand & Gravel, Inc. (280)	Portage	sand & gravel	98,480	98,480	Pe-64	IM-1017
John P. Raisch, Inc. P.O. Box 93 Miamisburg, OH 45342 513-866-3094 John P. Raisch, owner	John P. Raisch, Inc. (562)	Montgomery	sand & gravel			My-R	IM-539
Rash Energy, Inc. 3114 U.S. Route 62 Dundee, OH 44624 216-359-5909 Freeman Mullet, pres.	Rash Energy, Inc. (64) (144) (144)	Wayne	sandstone clay shale	30,561 48,000 73,561	30,561 48,000 73,561	We-R	IM-690
Red Brush Peat Co. 6945 Red Brush Rd. Ravenna, OH 44326 216-297-0923 Barbara H. Linger, owner	Red Brush Peat Co. (482) (116) (9)	Portage	sand & gravel clay peat	2,451 2,303 4,382	2,451 2,303 2,732	Pe-61	IM-1064

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
Richards & Son, Inc. 49947 State Rte. 338 Racine, OH 45771 614-247-2311 Dennis R. Taylor, v. pres.	Richards & Son, Inc. (212)	Meigs	sand & gravel	741,530	741,530	Ms-298	IM-32
Richards Farms, Inc. 24537 Canal Rd. Circleville, OH 43113 614-474-3602 Bruce S. Richards, pres.	Richards Farms, Inc. (481)	Pickaway	sand & gravel	32,576	32,576	Pky-R	IM-993
Richards Service Garage 2170 Wilberforce-Clifton Rd. Xenia, OH 45385 513-372-8263 Roger Richards, owner	Richards Service Garage (547)	Greene	sand & gravel	200	200	Ge-R	IM-829
Richland Moulded Brick Co. 1000 Richland Shale Rd. P.O. Box 1711 Mansfield, OH 44901 419-524-0000 Dudley P. Frame, Jr., pres.	Richland Moulded Brick Co. (114)	Richland	shale	6,260	6,260	Rd-R	IM-1035
Ridge Township Quarry 16905 Middlepoint Rd. Van Wert, OH 45891 419-238-2533 Jenny Lautenschleger, foreman	Ridge Township Quarry (122)	Van Wert	limestone	75,657	75,657	Vt-7	IM-642
Ries Sand & Gravel 169 State Rte. 95 Jeromesville, OH 44840 419-368-7833 Robert Ries, owner	Ries Sand & Gravel (6)	Ashland	sand & gravel	3,827	3,827	Ald-9	IM-745
Riverside Sand & Gravel Co., Inc. P.O. Box 324 Tallmadge, OH 44278-0324 216-673-2021 A. H. Acken, Jr., pres.	Riverside Sand & Gravel Co., Inc. (333) (49)	Summit	sand & gravel sandstone	31,532 22,921	31,532 22,921	St-24	IM-239
Gary Roberts Excavating 570 Derby Downs Rd. Newark, OH 43055 614-763-3206 Gary L. Roberts, owner	Gary Roberts Excavating (419)	Licking	sand & gravel	1,578	1,578	Lg-504	IM-991
Rogers Group, Inc. dba Norwalk Sand & Gravel P.O. Box 338 Sandusky, OH 44871-0338 419-625-8493 Richard Rechter, director	Norwalk Sand & Gravel (157)	Huron	sand & gravel	127,179	117,784	Hrn-1	IM-550
Rogers Group, Inc. dba Sandusky Crushed Stone Co. P.O. Box 338 Sandusky, OH 44871-0338 419-625-8493 Richard Rechter, director	Sandusky Crushed Stone Co. (25)	Erie	limestone	3,459,658	3,459,658	Ee-11	IM-263
Ross County Gravel Co. P.O. Box 158 Sabina, OH 45169-0158 513-584-2486 Craig Beam, pres.	Ross County Gravel Co. (530)	Ross	sand & gravel	122,149	120,127	Rs-R	IM-1143
Ross County Redi-Mix Co., Inc. 689 Marietta Rd. Chillicothe, OH 45601 614-775-4466 Todd Wrightsel, v. pres.	Ross County Redi-Mix Co., Inc. (574)	Ross	sand & gravel			Rs-RC	IM-925
Rubber City Sand & Gravel Co. P.O. Box 106 Uniontown, OH 44685 216-699-3311 William H. Leach, Sr., owner	Rubber City Sand & Gravel Co. (334)	Summit	sand & gravel	160,219	160,219	St-9	IM-167

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
Rubel Quarry, Inc. 35479 State Rte. 78 Lewisville, OH 43754 614-567-3217 Randy Rubel, pres.	Rubel Quarry, Inc. (164)	Monroe	limestone	27,414	27,414	Me-509	IM-1094
Rupp Construction, Inc. 18228 Fulton Rd. Marshallville, OH 44645 216-855-2781 J. P. Radabaugh, pres.	Rupp Construction, Inc. (581) Rupp Construction, Inc. (373)	Stark Wayne	sand & gravel sand & gravel	214,587	214,587	Sk-R We-7	IM-697 IM-471
S. K. Construction Co. 2514 Atco Ave. Middletown, OH 45042 513-424-1613 H. R. Smith, pres.	Ron Chrisman Farm (120)	Butler	clay	93,267	93,267	Br-SK	IM-1137
S & S Aggregate, Inc. P.O. Box 1585 Zanesville, OH 43702-1585 614-453-0624 Larry E. Young, v. pres.	Plant #1 (101) Plant #13 (159) S & S Aggregate, Inc. (63) Twin Lakes Sand, Inc. (281) Twin Lakes Sand, Inc. (282) Twin Lakes Sand, Inc. (336)	Franklin Knox Mercer Portage Portage Summit	sand & gravel sand & gravel limestone sand & gravel sand & gravel sand & gravel	250,000 173,675 125,000 50,000 105,000	250,000 173,675 125,000 50,000 105,000	Fm-24 Kx-13 Mr-2 Pe-59 Pe-67 St-44	IM-266 IM-343 IM-430 IM-210 IM-202 IM-178
G. M. Sader Excavating & Paving, Inc. P.O. Box 306 Bowling Green, OH 43402 419-352-5113 Gregory M. Sader, pres.	G. M. Sader Excavating & Paving, Inc. (456) (104)	Wood	sand & gravel clay	21,079	21,079	Wd-13	IM-998
Salt Creek Materials, Inc. 880 Spry Rd. Zanesville, OH 43701 614-872-3860 Charles O. Lighthizer, owner	Salt Creek Materials, Inc. (248) Salt Creek Materials, Inc. (144)	Muskingum Muskingum	sand & gravel limestone	2,431 15,662	0 10,157	Mum-216 Mum-269	IM-689 IM-1009
Samco, Inc. 10217 State Rte. 534 N Middlefield, OH 44062 216-272-5158 J. Jim Holmes, pres.	Springbrook (340)	Ashtabula, Trumbull	sand & gravel	442,884	442,884	Tl-12 ¹³	IM-131
Sandkuhl Tile Co., Inc. 05536 Kossuth-Amanda Rd. Spencerville, OH 45887 419-647-4131 Leslie E. Sandkuhl, pres.	Sandkuhl Tile Co., Inc. (2)	Auglaize	clay	2,537	2,537	Ae-7	
Sandman Sand & Stone, Inc. 1620 Kieswetter Rd. Holland, OH 43528 419-865-1666 Robert Parker, pres.	Sandman Sand & Stone, Inc. (542) Archbold Whitehouse (556)	Fulton Lucas	sand & gravel sand & gravel	160,691	160,691	Ftn-S Ls-MH	IM-1146 IM-1144
Sands Hill Coal Co., Inc. 1203 N. Pennsylvania Ave. Wellston, OH 45692 614-384-5659 Bonny A. Huffman, pres.	Sands Hill Strip #4 (158)	Jackson	limestone	380,040	380,040	Jkn-SH	IM-1068
Sant Sand & Gravel, Inc. P.O. Box 750 Mt. Vernon, OH 43050 614-397-0000 Keith L. Sant, pres.	Sant Sand & Gravel, Inc. (163)	Knox	sand & gravel	80,055	73,545	Kx-3	IM-300
Michael B. Sayers P.O. Box 515 Put-in-Bay, OH 43456-0515 419-285-2260 Michael B. Sayers, owner	Michael B. Sayers (516)	Delaware	sand & gravel	3,460	3,460	Del-S	IM-1118
Guy Schieve P.O. Box 83 Birmingham, OH 44816 216-965-8792 Guy Schieve, owner	Guy Schieve (191)	Lorain	sand & gravel	960	960	Ln-12	IM-731

¹³All sales and production are from Trumbull County.

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
Schilling Contractors, Inc. Rte. 2 Box 326 Ironton, OH 45638 614-532-8463 Earl P. Schilling, pres.	Schilling Contractors, Inc. (305)	Scioto	sand & gravel			So-78	
Schloss Materials Co. 13700 McCracken Rd. Cleveland, OH 44125 216-587-4900 Raymond E. Schloss, Sr., pres.	Schloss Materials Co. (274) Schloss Materials Co. (569)	Portage Portage	sand & gravel sand & gravel	108,761	108,761	Pe-60 Pe-SP	IM-78 IM-499
Schrader Sand & Gravel 601 Gravel Washer Rd. Beaver, OH 45613 614-226-1325 Melvin Schrader, owner	Schrader Sand & Gravel (45)	Pike	sandstone	28,255	40,390	Pke-31	IM-835
Scioto Sand & Gravel P.O. Box 31 Marion, OH 43301-0031 614-726-2164 Gerald E. Fleming, pres.	Scioto Sand & Gravel (197)	Marion	sand & gravel	3,958	0	Mn-16	IM-171
Scioto Valley Resources P.O. Box 760 Lucasville, OH 45648 513-393-4211 John B. Patton, pres.	Scioto Valley Resources Division (395)	Scioto	sand & gravel	496,489	486,528	So-100	IM-950
Seaway Sand & Stone, Inc. 2190 Whitehouse-Spencer Rd. Swanton, OH 43558 419-865-5751 Mack S. Moon, pres.	Seaway Sand & Stone, Inc. (195) Stone Oaks (473)	Lucas Lucas	sand & gravel sand & gravel	22,196 262,951	22,196 262,951	Ls-13 Ls-SS	IM-492 IM-1069
Sam Serves 2267 Springfield Center Rd. Akron, OH 44312 216-644-9815 Sam Serves, pres.	Sam Serves (583)	Summit	sand & gravel	90,160	90,160	St-S	IM-722
Seville Sand & Gravel, Inc. 8215 Seville Rd. Seville, OH 44273 216-948-1812 George Cross, pres.	Seville Sand & Gravel, Inc. (206)	Medina	sand & gravel	364,972	364,972	Ma-22	IM-425, IM-650, IM-651
Shamrock Materials, Inc. 11641 Mosteller Rd. Cincinnati, OH 45241 513-771-0820 James P. Jurgensen, pres.	Shamrock Materials, Inc. (38)	Butler	sand & gravel	330,515	330,515	Br-52	IM-814
Sharon Stone Co. P.O. Box 100 Dexter City, OH 45727 614-783-3575 John P. McCort, pres.	Sharon Stone Co. (167)	Noble	limestone	83,179	83,179	Ne-S	IM-913
David A. Shay 3665 Hoffman-Norton Rd. West Farmington, OH 44491 800-686-6026 David A. Shay, owner	David A. Shay (585)	Trumbull	sand & gravel	35,000	35,000	TL-S	IM-1173
R. W. Sidley, Inc. 615 W. Main St. Conneaut, OH 44030 216-298-3232 Robert C. Sidley, pres.	Conneaut Pit (15)	Ashtabula	sand & gravel	42,000	96,500	Asa-15	IM-783
R. W. Sidley, Inc. 7123 Madison Rd. Thompson, OH 44086 216-298-3232 Robert C. Sidley, pres.	Thompson Pit (18) R. W. Sidley, Inc. (58) Painesville Pit (166)	Geauga Geauga Lake	sandstone sandstone sand & gravel	172,000 310 27,000	271,300 310 25,550	Gea-1 Gea-S Lke-7	IM-163 IM-161 IM-162
Sidney Sand & Gravel Co. P.O. Box 379 Sidney, OH 45365 513-492-3125 Thomas P. Milligan, pres.	Milligan & Milligan-Washington Twp. Pit (312) Rock Run Quarry (111) Wagner (493) Sidney Sand & Gravel Co. (577)	Shelby Shelby Shelby Shelby	sand & gravel limestone sand & gravel sand & gravel	244,764 57,754 200,000 13,104	244,764 45,279 200,000 13,104	Shy-13 Shy-16 Shy-S Shy-SS	IM-412 IM-411 IM-1005 IM-438

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
Sidwell Bros., Inc. 4620 Limestone Valley Rd. Zanesville, OH 43701 614-849-2392 Dale R. Sidwell, pres.	Stonehill Quarry (146) Sidwell Quarry (78) Hard Rocks (40)	Coshocton Muskingum Trumbull	limestone limestone sandstone	114,802 501,893 16,614	114,802 501,893 16,614	Cn-830 Mum-104 Tl-13	IM-1102 IM-277 IM-777
Silchuk Gravel Co. 2470 Wall Rd. Rittman, OH 44270 216-336-8796 Junior F. Silchuk, owner	Silchuk Gravel Co. (208)	Medina	sand & gravel			Ma-16	
Simak Trucking, Inc. 3052 E. Center St. P.O. Box 599 North Kingsville, OH 44068 216-224-1009 Joseph E. Simak, pres.	Simak Trucking, Inc. (413)	Ashtabula	sand & gravel	30,063	30,063	Asa-18 ¹⁴	IM-949
Slankard Dozer Service, Inc. Rte. 1 Box 49 Strasburg, OH 44680 216-878-5883 Jerry L. Slankard, pres.	Slankard Dozer Service, Inc. (54)	Tuscarawas	sandstone	104	104	Ts-2032	IM-1141
Small's Sand & Gravel, Inc. P.O. Box 617 Gambier, OH 43022 614-427-4096 Michael Small, pres.	Small's Sand & Gravel, Inc. (165) Small's Sand & Gravel, Inc. (408)	Knox Knox	sand & gravel sand & gravel	407,589	407,589	Kx-15 Kx-17	IM-967 IM-968
Sober Sand & Gravel Co. 2898 Tallmadge Rd. Ravenna, OH 44266 216-325-7013 Waldo A. Sober, agent	Sober Sand & Gravel Co. (275)	Portage	sand & gravel	34,100	20,000	Pe-18	IM-193
Soehnlén Bros. Sand & Gravel, Inc. Rte. 1 Box 88 Beach City, OH 44608 216-756-2244 Francis L. Soehnlén, pres.	Soehnlén Bros. Sand & Gravel, Inc. (343)	Tuscarawas	sand & gravel	57,670	62,294	Ts-1826	IM-88
Solomon's Mines, Inc. 7732 Salem-Unity Rd. Salem, OH 44460 216-332-0123 Jack Solomon, owner	Solomon's Mines, Inc. (196) (135)	Mahoning	sand & gravel clay	38,986 2,997	38,986 2,997	Mg-632	IM-808
Solon Excavators Sand & Gravel, Inc. 10925 Mantua Center Rd. P.O. Box Q Mantua, OH 44255 216-274-8241 Howard Sargent, pres.	Trethewey (443) Solon Excavators Sand & Gravel, Inc. (276) Solon Excavators Sand & Gravel, Inc. (486)	Geauga Portage Portage	sand & gravel sand & gravel sand & gravel	137,898 223,628	137,898 223,628	Gea-40 Pe-36 Pe-SE	IM-977 IM-90 IM-1096
Soltis Sand & Gravel 19102 Nelson Ledge Rd. Garrettsville, OH 44231 216-548-5813 James W. Soltis, owner	Soltis Sand & Gravel (415) (86)	Geauga	sand & gravel clay	11,664 415	11,664 415	Gea-9	IM-132
Southern Ohio Aggregates, Inc. 11641 Mosteller Rd. Cincinnati, OH 43113 513-771-0820 James P. Jurgensen, pres.	Southern Ohio Aggregates, Inc. (460) Southern Ohio Aggregates, Inc. (551) Southern Ohio Aggregates, Inc. (552) Southern Ohio Aggregates, Inc. (284)	Butler Hamilton Hamilton Preble	sand & gravel sand & gravel sand & gravel sand & gravel	5,000 1,000 500 1,500	5,000 1,000 500 1,500	Br-S Hmn-S Hmn-SO Pre-7	IM-1053 IM-746 IM-720 IM-306
Southern Ohio Sand & Gravel, Inc. 9336 Dick Rd. Harrison, OH 45030 513-353-9014 David Welsh, pres.	Southern Ohio Sand & Gravel, Inc. (134)	Hamilton	sand & gravel	30,427	0	Hmn-71	IM-771
Southern Silica, Inc. P.O. Box 22 Richmond Dale, OH 45673 614-884-4721 George W. Cannon, Jr., pres.	Southern Silica, Inc. (34)	Ross	sandstone	205,187	205,187	Rs-16	IM-172

¹⁴This mine was operated 1st quarter 1992 by North Ridge Materials, and 2nd through 4th quarters by Simak Trucking, Inc.

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
Southwestern Portland Cement Co. Eastern Division 506 E. Xenia Rd. P.O. Box 191 Fairborn, OH 45324 513-878-8651 Clarence Comer, pres.	Southwestern Portland Cement Co. (33) Southwestern Portland Cement Co. (10) Southwestern Portland Cement Co. (34) Harner (90) Southwestern Portland Cement Co. (72)	Clark, Greene Greene Greene Greene Montgomery	limestone clay limestone clay limestone	238,063	238,063	Ge-1 Ge-8 Ge-9 Ge-44 My-58	IM-393 IM-364 IM-364 IM-330
Speer Brothers, Inc. 3812 Old Railroad Rd. Sandusky, OH 44870 419-626-5291 David Speer, pres.	101 Location (89)	Erie	clay	55,800	55,800	Ee-32	IM-1077
Sphagnum Moss Peat Farm 9797 Thompson Rd. West Liberty, OH 43357 513-873-8575 Mike Poling, lessee	Sphagnum Moss Peat Farm (2)	Champaign	peat	10,178	13,178	Cpn-9	
Spring Creek Corp. 4723 Hardin-Wapak Rd. Sidney, OH 45365 513-492-4186 Nelson E. Barhorst, pres.	Pence Deposit (314) River Quarry (112) Jones Deposit (315) "H" Mine	Shelby Shelby Shelby Shelby	sand & gravel limestone sand & gravel sand & gravel	163,525 164,515 90,874 29,603	163,525 164,515 90,874 29,603	Shy-11 Shy-15 Shy-18 Shy-SC	IM-743 IM-387 IM-388 IM-1018
Spring Industries, Inc. P.O. Box 507 New Philadelphia, OH 44663 216-339-3585 Glenn Straub, pres.	Bolivar Pit (582) Midvale Pit (344) Hardy Salt (588)	Stark Tuscarawas Tuscarawas	sand & gravel sand & gravel sand & gravel	361,803	387,300	Sk-SI Ts-1771 Ts-SI	IM-588 IM-77 IM-569
Spring Run Farm & Gravel 11070 Township Rd. 71 Killbuck, OH 44637-9715 216-276-8763 Gene Boughman, owner	Spring Run Farm & Gravel (416) (111)	Holmes	sand & gravel shale	3,407	3,407	Hs-96 ¹⁵	IM-997
Spring Valley Investments, Inc. 2800 N. Turkeyfoot Rd. Akron, OH 44319 216-644-2285 Douglas K. Rennick, pres.	Spring Valley Investments, Inc. (335)	Summit	sand & gravel			St-26	IM-803
City of Springfield 201 Eagle City Rd. Springfield, OH 45502 513-390-7210 Mark Ricketts, water plant maintenance supervisor	City of Springfield (437)	Clark	sand & gravel	13,000	13,000	Ck-7	IM-449
Springfield Sand & Gravel Co. 4301 S. Charleston Pike Springfield, OH 45502 513-325-7386 Don E. Mill, pres.	Springfield Sand & Gravel Co. (58)	Clark	sand & gravel	616,331	616,331	Ck-25	IM-358
Standard Lafarge 6715 Tippecanoe Rd. Bldg. C Canfield, OH 44406 216-533-3338 D. B. Peart, pres. & CEO	Adams (2) Forest Quarry (156) Marblehead (84) Cutlip (255) Shalersville (277) Shalersville Portable (278) Mantua (487) Haverhill (306) Navarre (453)	Adams Hardin Ottawa Pike Portage Portage Portage Scioto Stark	limestone limestone limestone sand & gravel sand & gravel sand & gravel sand & gravel sand & gravel sand & gravel	473,425 2,397,281 210,369 619,980 100,614 322,133	520,720 2,320,511 203,400 713,471 104,910 291,318	Ads-6 Hdn-S Oa-7 Pke-24 Pe-68 Pe-SS1 Pe-SS2 So-79 Sk-241	IM-659 IM-1034 IM-440 IM-222 IM-687, IM-1107 IM-660, IM-1124 IM-1047 IM-221 IM-582
State Line Resources, Inc. Route 154 Negley, OH 44441 216-426-2728 Charles H. Muse, Jr., pres.	State Line Resources, Inc. (4) (4)	Columbiana	clay shale			Ca-505	IM-13, IM-936
Steetley Quarry Products U.S., Inc. Ohio Lime Co. 128 E. Main St. Woodville, OH 43469 419-849-2321 Ian McGregor, pres.	Millersville Plant (103) Woodville Plant (104)	Sandusky Sandusky	limestone limestone	¹⁶ 1,406,521	1,530,660	Sy-4 Sy-3	IM-381 IM-282

¹⁵This mine was operated 1st quarter 1992 by Spring Run Farm & Gravel, and 2nd through 4th quarters by Jeff Chaney.¹⁶All sales and production are reported under Sy-3.

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
Stewart & Reichman, Inc. 1866 State Rte. 416 SE Gnadenhutten, OH 44629 614-922-5898 Timothy G. Brown, pres.	Stewart & Reichman, Inc. (346)	Tuscarawas	sand & gravel	60,609	60,609	Ts-111	IM-55
Stillwater Sand & Gravel, Inc. 7850 Karns Rd. West Milton, OH 45383 513-698-3028 Ed Bohse, pres.	Sillwater Sand & Gravel, Inc. (447)	Miami	sand & gravel	147,003	124,044	Mi-504	IM-1032
Stocker Sand & Gravel Co. P.O. Box 176 Gnadenhutten, OH 44629 614-254-4635 William E. Stocker, pres.	Stocker Sand & Gravel Co. (347) Stocker Sand & Gravel Co. (348)	Tuscarawas Tuscarawas	sand & gravel sand & gravel	395,571 551,529	395,571 551,529	Ts-69 Ts-125	IM-51 IM-50
Stoneco, Inc. 1345 Ford St. P.O. Box 29A Maumee, OH 43537 419-893-8731 John Bearss, pres.	Maumee Quarry (54) Celina Quarry (62) Rocky Ridge (83) Auglaize Quarry (88) Scott Quarry (121) South Montpelier (375) North Montpelier (376) Takacs Quarry (506) Lime City Quarry (131) Portage Quarry (132)	Lucas Mercer Ottawa Paulding Van Wert Williams Williams Williams Wood Wood	limestone limestone limestone limestone limestone sand & gravel sand & gravel sand & gravel limestone limestone	686,624 483,454 203,004 549,940 237,521 263,547 545,578 345,094	686,624 483,454 203,004 549,940 237,521 263,547 545,578 345,094	Ls-2 Mr-1 Oa-14 Pg-2 Vt-3 Ws-6 Ws-9 Ws-T Wd-6 Wd-11	IM-503 IM-592 IM-320 IM-481 IM-495 IM-497 IM-498 IM-1022 IM-480 IM-475
Stone Creek Brick Co. P.O. Box 116 Stone Creek, OH 43840 216-339-5511 A. C. Marsh, Jr., pres.	Stone Creek Clay Mine (67) Stone Creek Shale Pit (67)	Tuscarawas Tuscarawas	clay shale	44,617 2,508	44,617 2,508	Ts-1557 Ts-1558	IM-52 IM-52
Suever Stone Co., Inc. Bloomlock Rd. P.O. Box 10 Delphos, OH 45833 419-692-9796 Carl Suever, pres.	Suever Stone Co., Inc. (7) Delphos Quarry (123)	Allen Van Wert	limestone limestone	112,690 174,189	130,240 198,908	An-4 Vt-1	IM-491 IM-500
Dave Sugar, Inc. P.O. Box AH New Middletown, OH 44442 216-542-9397 David Sugar, pres.	Dave Sugar, Inc. (475)	Mahoning	sand & gravel			Mg-630	IM-1091
Sugarcreek Clay & Limestone, Inc. P.O. Box 402 Sugarcreek, OH 44681 216-852-4440 Daniel O. Miller, pres.	Newcomerstown Plant (72) Sugarcreek Clay & Limestone, Inc. (118) Sugarcreek Clay & Limestone, Inc. (69) (69)	Coshocton Tuscarawas	sand & gravel limestone clay shale	49,920	49,920	Cn-624 Ts-1928	IM-243 IM-98
Summitville Tiles, Inc. P.O. Box 173 Summitville, OH 43962 216-223-1511 David Johnson, pres.	Summitville Tiles, Inc. (5) Summitville Tiles, Inc. (127)	Columbiana Columbiana	shale shale	36,205	36,205	Ca-205 Ca-989	IM-74 IM-1110
Sunshine Sand Co. 8861 State Rte. 43 Kent, OH 44240 216-587-2700 Margaret A. Bova, pres.	Sunshine Sand Co. (528)	Portage	sand & gravel	1,852	1,852	Pe-SSC	IM-318
Swingle Drilling, Inc. 713 Keystone St. Crooksville, OH 43731 614-982-8420 James R. Swingle, pres.	Myron Taylor (97) T. G. Industries, Inc. (138)	Perry Perry	clay clay	1,930 530	1,930 530	Py-S Py-S1	IM-1080 IM-1183
Tackett Builders 906 Charleston Pike Chillicothe, OH 45601 614-772-5431 Carmel G. Tackett, owner	Tackett Builders (150)	Ross	shale			Rs-T	IM-1189
Teague Gravel Co., Inc. 10924 Kinsman Rd. Newbury, OH 44065 216-564-5671 Donald Teague, pres.	Teague Gravel Pit (109)	Geauga	sand & gravel	77,296	77,296	Gea-35	IM-321

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
Don Thompson Excavating, Inc. 1471 W. Paintersville Rd. Spring Valley, OH 45370 513-862-7911 Todd Thompson, pres.	Don Thompson Excavating, Inc. (546)	Greene	sand & gravel	12,720	12,720	Ge-46	IM-1149
Tipp Stone Co., Inc. P.O. Box 367 Troy, OH 45373 513-228-8423 T. L. Eidemiller, pres.	Troy (446) Meeker (238)	Miami Montgomery	sand & gravel sand & gravel	2,490 97,467	2,490 97,467	Mi-12 My-61	IM-467 IM-468
Towne Square Products 156 E. Broadway Westerville, OH 43081 614-882-6990 Suzanne Edgar, pres.	Towne Square Products (41)	Noble	shale	1,650	1,650	Ne-66	IM-664
TRANS-ASH 48041 County Rd. 273 Conesville, OH 43811 614-829-2469 Rudy J. Gerbus, pres.	TRANS-ASH (132)	Coshocton	clay	46,300	46,300	Cn-T	IM-1147
Tri-County Limestone Co. 4664 Hardin-Marion Rd. N Kenton, OH 43326 419-675-7127 Norman Cochran, pres.	Tri-County Limestone Co. (61)	Marion	limestone	155,823	155,823	Mn-1	IM-250
Robert Tripp 29332 Enterprise-Isles Rd. Logan, OH 43138 614-385-9402 Robert Tripp, owner	Robert Tripp (522)	Hocking	sand & gravel	200	0	Hg-328	IM-1113
Tri-State Asphalt Productions 44 Sixteenth St. Wheeling, WV 26003 304-233-1110 Glenn Straub, pres.	Tri-State Asphalt Productions (26)	Belmont	sand & gravel	291,922	264,584	Bt-74	IM-288
Tri-State Clay & Coal Co., Inc. P.O. Box 135 Hitchins, KY 41146-0135 606-474-5525 Tom Parsons, pres.	Tri-State Clay & Coal Co., Inc. (134)	Lawrence	clay			Le-T	IM-1172
Trout Sand & Gravel Co. Rte. 4 Marietta, OH 45750 800-344-4948 Henry C. Trout, Jr., owner	Trout Sand & Gravel Co. (369)	Washington	sand & gravel	49,555	49,555	Wn-510	IM-25
Tuffco Sand & Gravel, Inc. P.O. Box 399 Marysville, OH 43040 614-873-3977 Charles Lewis, pres.	Tuffco Sand & Gravel, Inc. (474)	Madison	sand & gravel	69,068	78,662	Mdn-11	IM-1063
U.S. Silica Co. 701 Boyce Memorial Dr. Ottawa, IL 61350 815-434-0188 Richard E. Goodell, pres.	Coxey Works (42)	Tuscarawas	sandstone	16,785	16,785	Ts-1660	IM-68
Union Aggregates Co. 8328 Watkins Rd. P.O. Box 178 Ostrander, OH 43061 614-666-2013 Don E. Mill, pres.	Prospect Sand & Gravel Plant (200) Union Limestone Plant (120)	Marion Union	sand & gravel limestone	54,391 604,287	49,953 604,287	Mn-10 Un-2	IM-196 IM-236
United Builders Distributing Corp. 24371 State Rte. 30 E. Rochester, OH 44625 216-894-2394 Roger McDaniel, pres.	United Builders Distributing Corp. (464)	Columbiana	sand & gravel			Ca-U	IM-999
V.I.P. Contractors, Inc. 475 Mormon Rd. Hamilton, OH 45013 513-863-8183 James E. Broshear, pres.	V.I.P. Contractors, Inc. (28)	Butler	sand & gravel	2,250	2,250	Br-36	IM-649

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
Valley Materials Co. 4947 U.S. Rte. 23 South P.O. Box 400 Piketon, OH 45661 614-289-4400 Ralph McFann, pres.	Valley Materials Co. (252) (99)	Pike	sand & gravel clay	55,997 1,952	55,997 1,952	Pke-26	IM-142
Valley Clay Mining Co. 26 N. Shawnee Ave. Zanesville, OH 43701 614-452-3633 F. Klemm Ungemach III, pres.	Kimpel Mine (122)	Muskingum	clay	7,354	8,932	Mum-904	IM-1127
Van Wey Sand & Gravel, Inc. 6824 Mt. Vernon Rd. NE Newark, OH 43055 614-745-5965 Richard L. Van Wey, pres.	Van Wey Sand & Gravel, Inc. (179)	Licking	sand & gravel	373,640	398,000	Lg-10	IM-217
Wagner Quarries Co. 4203 Milan Rd. Sandusky, OH 44870 419-625-8141 Stephen C. Lochner, pres.	Wagner Quarries Co. (26) Wagner Quarries Co. (145)	Erie Erie	limestone limestone	1,384,909	1,449,757	Ee-1 Ee-31	IM-310 IM-1044
Ralph C. Wagner & Sons 7317 Brinker St. Navarre, OH 44662 216-879-2516 Ralph C. Wagner, owner	Ralph C. Wagner & Sons (579)	Stark	sand & gravel	50	50	Sk-W	IM-867
Waller Bros. Stone Co. P.O. Box 157 McDermott, OH 45652 614-259-2356 F. L. Waller, pres.	Inskeep Quarry (36) Crabtree Quarry (37) Miller Quarry (38)	Scioto Scioto Scioto	sandstone sandstone sandstone	7,620 1,041	7,620 1,041	So-48 So-76 So-82	IM-140 IM-141 IM-158
Tommie G. Walters 1676 County Rd. D Swanton, OH 43558 419-825-3192 Tommie G. Walters, pres.	Tommie G. Walters (543)	Fulton	sand & gravel			Ftn-6	IM-1175
Walter's Gravel 11302 National Rd. SE Thornville, OH 43076 614-323-0783 Viva W. Fenice, owner	Walter's Gravel (180)	Licking	sand & gravel			Lg-15	
Ward Materials, Inc. 385 Oak St. R.R. 2 Leipsic, OH 45856 419-943-2450 Arnold W. Rosebrock, pres.	Ward Materials, Inc. (2)	Allen	sand & gravel	46,369	44,869	An-15	IM-721
Don Wartko Construction, Inc. 975 Tallmadge Rd. Kent, OH 44240 216-673-5252 Donald Wartko, pres.	Don Wartko Construction, Inc. (483)	Portage	sand & gravel	847	847	Pe-92	IM-522
Washington County Engineer 217 Putnam St. Marietta, OH 45750 614-373-6623 Paul F. Junk, engineer	Washington County Pit (505)	Washington	sand & gravel	4,631	4,631	Wn-Wn	IM-989
Waste Management of Ohio, Inc. 3619 Gracemont St. SE East Sparta, OH 44626 216-874-3855 Greg A. Terwilliger, site mgr.	Countywide RDF (126) (126)	Stark	clay shale	224,000 231,181	224,000 231,181	Sk-217	IM-750
Waterloo Coal Co., Inc. P.O. Box 626 Jackson, OH 45640 614-682-7787 Phil A. Bowman, v. pres.	Waterloo-Zoar (47) (23)	Jackson	limestone clay	412,362 7,530	440,040 7,530	Jkn-367	IM-774
Watson Gravel, Inc. 2728 Hamilton-Cleves Rd. P.O. Box 277 Ross, OH 45061 513-863-0070 Ronald E. Watson, pres.	Watson Pit (44) Spring Valley (441) Harrison Pit (142) Mason Pit (363)	Butler Greene Hamilton Warren	sand & gravel sand & gravel sand & gravel sand & gravel	528,944 477,755 568,684 297	528,944 477,755 568,684 0	Br-47 Ge-38 Hmn-60 Wan-10	IM-111 IM-333 IM-761 IM-465

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
Weber Aggregates P.O. Box 116 Reedsville, OH 45772 614-378-6293 Denver Weber, owner	Weber Aggregates (459)	Athens	sand & gravel	36,261	36,261	As-W	IM-979
Weber Sand & Gravel, Inc. Rte. 2 Box 3 Bryan, OH 43506 419-636-7920 Thomas G. Weber, pres.	Weber Sand & Gravel, Inc. (377)	Defiance, Williams	sand & gravel	208,890	208,890	Ws-11 ¹⁷	IM-509, IM-661
Hoyle Weddle 1289 Dequency Dr. Xenia, OH 45385 513-426-1234 Hoyle Weddle, owner	Hoyle Weddle (549)	Greene	sand & gravel			Ge-W	IM-645
Weidle Sand & Gravel, Inc. P.O. Box 247 Germantown, OH 45327 513-855-4501 Ronald L. Weidle, Sr., pres.	Weidle Sand & Gravel, Inc. (41) Weidle Sand & Gravel, Inc. (239)	Butler Montgomery	sand & gravel sand & gravel	99,451 160,040	99,451 160,040	Br-6 My-41	IM-177 IM-360
Welch Sand & Gravel, Inc. 10217 Columbia St. Harrison, OH 45030-9751 513-353-3220 Charles H. Welch, pres.	Schlichter Pit (45) Fernald Pit (143) East Miami Pit (144)	Butler Hamilton Hamilton	sand & gravel sand & gravel sand & gravel	140,632 304,595 253,153	140,632 304,595 253,153	Br-38 Hmn-42 Hmn-48	IM-218 IM-823 IM-220
Brush Wellman, Inc. 14710 W. Portage River South Rd. Elmore, OH 43416-9502 419-862-2745 Andy Sander, v. pres., operations	Brush Wellman, Inc. (136)	Ottawa	clay			Oa-BW	IM-1153
White Eagle Mining, Inc. P.O. Box 2 Pedro, OH 45659 614-533-2234 William Shope, Jr., pres.	White Eagle Mining, Inc. (121)	Lawrence	clay			Le-445	IM-1140
White Rock Quarry, L.P. Division of U.S. Aggregates, Inc. P.O. Box 119 Clay Center, OH 43408-0119 317-872-6010 Robert Simpson, pres.	White Rock Quarry (82)	Ottawa	limestone	593,743	618,000	Oa-6 ¹⁸	IM-296
Frank Widmor Coal Co. P.O. Box 176 Blaine, OH 43909 614-635-4811 Frank Widmor, owner	Frank Widmor Coal Co. (152) (56) (105) (105)	Belmont	limestone sandstone clay shale	175,708 5,045 303,260	175,708 5,045 303,260	Bt-1190	IM-1089
Mark Williams Blacktop Co., Inc. Rte. 4 Box 34 Marietta, OH 45750 614-373-2457 Mark Williams, owner	Williams Pit #1 (504) Williams Pit #2 (534)	Washington Washington	sand & gravel sand & gravel	14,397	31,564	Wn-1007 Wn-1009	IM-1042 IM-525
Willowbrook 39130 Brookfield St. Lisbon, OH 44432 216-424-7493 Ray Perrino, owner	Willowbrook (538)	Columbiana	sand & gravel			Ca-W	IM-1180
Eugene T. Wilson P.O. Box 46 Mt. Sterling, OH 43143 614-877-4743 Eugene Wilson, owner	Eugene T. Wilson (565)	Pickaway	sand & gravel	338	338	Pky-W	IM-1176
Dennis Winzeler Center St. Rte. 4 Box 4 Bryan, OH 43506 419-636-4285 Dennis & Polly Winzeler, owners	Dennis Winzeler (378)	Williams	sand & gravel			Ws-14	IM-614

¹⁷All sales and production are from Williams County.¹⁸This mine was operated 1st quarter 1992 by Edward Kraemer & Sons, Inc., and 2nd through 4th quarters by White Rock Quarry, L.P.

1992 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1992 sales (tons)	1992 production (tons)	State mine number	Division of Reclamation permit number
Wise Gravel 8535 W. Klinger Rd. Covington, OH 45318 513-473-3246 John A. Wise, owner	Wise Gravel (221)	Miami	sand & gravel	5,480	5,480	Mi-9	IM-408
Wyandot Dolomite, Inc. P.O. Box 126 Carey, OH 43316-0126 419-396-7641 David J. Wolfe, pres.	Wyandot Dolomite, Inc. (135)	Wyandot	limestone	1,199,769	1,254,888	Wt-8	IM-273
Wysong Gravel Co. P.O. Box 5 West Alexandria, OH 45381 513-962-2559 Gerald E. Wysong, pres.	Camden Plant (285) West Alexandria Plant (286)	Preble Preble	sand & gravel sand & gravel	174,556 88,664	174,556 88,664	Pre-4 Pre-6	IM-477 IM-478
Wysong Stone Co. 5897 State Rte. 503 N P.O. Box 159 Lewisburg, OH 45338 513-962-2559 Gerald E. Wysong, pres.	Wysong Stone Co. (95)	Preble	limestone	54,684	54,684	Pre-5	IM-447
X L Sand & Gravel P.O. Box 157 Negley, OH 44441 216-426-9876 Robert Lansberry, pres.	X L Sand & Gravel (68)	Columbiana	sand & gravel	79,400	79,400	Ca-881	IM-611
Xenia Sand, Gravel, & Asphalt Co. .588 Dayton-Xenia Rd. Xenia, OH 45385 513-372-2978 David A. Thompson, owner	Xenia Sand, Gravel, & Asphalt Co. (117)	Greene	sand & gravel			Ge-10	IM-518
York Road Gravel Co. 8819 York Rd. SW Pataskala, OH 43062 614-927-2821 Jack & Jean Klima, owners	York Road Gravel Co. (181)	Licking	sand & gravel	13,943	13,943	Lg-38	IM-695
Young's Sand & Gravel Co. 689 State Rte. 39 W P.O. Box 117 Loudonville, OH 44842 419-994-3040 Milton, Marion, & Delmar Young, partners	Sprang (8) Young's Sand & Gravel Co. (412)	Ashland Ashland	sand & gravel sand & gravel	95,731 157,019	95,731 157,019	Ald-7 Ald-15	IM-392 IM-944
Zerger's Quarry 100 N. Sycamore St. Woodsfield, OH 43793 614-472-1675 Herman Zerger, owner	Zerger's Quarry (80)	Monroe, Noble	limestone	6,333	6,333	Ne-86 ¹⁹	IM-70
Zink Petroleum Corp. dba State Rte. 416 Sand & Gravel 1530 Corporate Woods Pky. Suite 200 Uniontown, OH 44685 216-492-2854 Jeffrey E. Zink, pres.	State Rte. 416 Sand & Gravel (500)	Tuscarawas	sand & gravel	333,152	333,152	Ts-2018	IM-1076
Zoar Mining Co. P.O. Box 550 Zoar, OH 44697 216-874-2434 David W. Johnson, pres.	Zoar Mining Co. (70) (70) Zoar Mining Co. (71) (71)	Tuscarawas Tuscarawas	clay shale clay shale	2,391 576	13,849 576	Ts-538 Ts-540	IM-27 IM-28
Zollinger Sand & Gravel Co. 11899 Easton Rd. Rittman, OH 44270 216-855-2464 Carl Zollinger, pres.	Zollinger Sand & Gravel Co. (374)	Wayne	sand & gravel	95,905	95,905	We-15	IM-398

¹⁹All sales and production are from Noble County.



Vanport limestone being dumped into a crusher at Waterloo Coal Company's surface-mining operation in Jackson County. Photo taken during the 1993 Ohio's Mineral Industries Teachers Workshop.



View looking north toward Columbus from American Aggregates Corporation's Columbus Limestone quarry in southern Franklin County. Building stone was cut from this quarry recently for use in the renovation of the State Capitol. Photo taken during the 1993 Ohio's Mineral Industries Teachers Workshop.

1992 LIMESTONE/DOLOMITE COMPANIES WITH SALES OR PRODUCTION

Company	No. of operations	Sales (tons)	Production (tons)	Company	No. of operations	Sales (tons)	Production (tons)
All Stone Co.	1	1,104	1,104	Miami River Stone Co.	1	240,730	241,419
American Aggregates Corp.	14	6,664,554	7,332,619	Midwest Portland Cement Corp.	1	473,810	473,810
Ayers Limestone Quarry, Inc.	1	80,417	80,417	National Lime & Stone Co.	8	8,211,946	8,109,317
Barrett Paving Materials, Inc.	1	336,529	336,529	North Shore Stone Quarries, Inc.	1	7,358	7,358
Belville Mining Co., Inc.	1	55,857	55,857	Northwood Stone & Asphalt Co.	2	285,846	353,608
Black Gold Recovery, Inc.	1	31,273	46,273	Ohio Asphaltic Limestone Corp.	1	280,829	230,632
Bluffton Stone Co.	1	191,177	191,177	Olen Corp.	1	439,049	351,205
Central Ohio Coal Co.	1	137,756	137,756	Penry Stone Co.	1	217,519	217,519
Chesterhill Stone Co.	1	571,101	575,392	Petersburg Stone Co.	1	20,882	20,882
Christman Quarry	1	75,432	65,432	Piqua Materials, Inc.	1	314,218	322,950
Con-Ag, Inc.	1	198,817	212,537	C. F. Poeppelman, Inc.	1	227,126	227,126
Davon, Inc.	2	2,179,283	2,225,490	Putnam Stone Co.	1	258,346	262,309
C. E. Duff & Son, Inc.	1	273,032	273,032	Quality Stone Co.	2	353,230	353,230
E. M. A. I. Corp.	3	1,522,563	2,100,788	Quarry Trails	1	635	635
R. A. Eberts Co., Inc.	1	262,645	268,031	Ridge Township Quarry	1	75,657	75,657
Erie Blacktop, Inc.	1	53,254	176,011	Rogers Group, Inc.,			
The France Stone Co.	6	3,210,660	3,610,784	dba Sandusky Crushed Stone Co.	1	3,459,658	3,459,658
G & M Supply, Inc.,				Rubel Quarry, Inc.	1	27,414	27,414
dba Clinton Stone, Inc.	1	167,455	0	Salt Creek Materials, Inc.	1	15,662	10,157
GenLime Group, L.P.	1	537,817	242,853	Sands Hill Coal Co., Inc.	1	380,040	380,040
Gottron Bros. Co.	1	87,825	41,114	Sharon Stone Co.	1	83,179	83,179
Gregory Stone Co., Inc.	1	334,700	334,700	Sidney Sand & Gravel Co.	1	57,754	45,279
J. M. Hamilton & Sons Co., Inc.	1	111,681	111,681	Sidwell Bros., Inc.	2	616,695	616,695
Hardin Quarry Co., Inc.	1	142,413	142,413	Southwestern Portland Cement Co.	1	238,063	238,063
Holloway Sand & Gravel Co., Inc.	1	2,500	2,500	Spring Creek Corp.	1	164,515	164,515
Holmes Limestone Co.	2	101,126	101,126	Standard LaFarge	2	2,870,706	2,841,231
Honey Creek Stone Co.	1	202,471	155,840	Steetley Quarry Products U.S., Inc.,			
Kellstone, Inc.	1	559,541	559,541	Ohio Lime Co.	2	1,406,521	1,530,660
Kimble Clay & Limestone Co.	1	103,323	103,323	Stoneco, Inc.	7	3,051,215	3,051,215
King Limestone, Inc.	1	210,553	210,553	Suever Stone Co., Inc.	2	286,879	329,148
Edward Kraemer & Sons, Inc.	1 ¹	82,664	82,664	Sugarcreek Clay & Limestone, Inc.	1	49,920	49,920
Lafarge Corp.	1	1,058,207	1,058,207	Tri-County Limestone Co.	1	155,823	155,823
Lakeland Construction	1 ²	13,590	13,590	Union Aggregates Co.	1	604,287	604,287
Latham Limestone, Inc.	1	192,643	217,519	Wagner Quarries Co.	1	1,384,909	1,449,757
MacRitchie Materials, Inc.	1	249,027	249,027	Waterloo Coal Co., Inc.	1	412,362	440,040
Maple Grove Stone Co.	1	63,780	63,780	White Rock Quarry, L.P.,			
Marshall Quarry, Inc.	1	5,068	5,068	Division of U.S. Aggregates, Inc.	1	593,743	618,000
Martin Marietta Magnesia				Frank Widmor Coal Co.	1	175,708	175,708
Specialties, Inc.	1	2,594,984	2,594,984	Wyandot Dolomite, Inc.	1	1,199,769	1,254,888
Maxville Quarries, Inc.	2	230,600	223,904	Wysong Stone Co.	1	54,684	54,684
McCarthy Stone Quarry	1	112,066	112,066	Zerger's Quarry	1	6,333	6,333
Melvin Stone Co.	3	1,428,964	1,428,964				
				TOTAL: 78 companies	120	53,141,472	54,578,997

¹This mine was operated 2nd through 4th quarters 1992 by White Rock Quarry, L.P. and is not included in the total number of mines.²This mine was operated 2nd through 4th quarters 1992 by Black Gold Recovery, Inc. and is not included in the total number of mines.

1992 OHIO DIRECTORY OF LIMESTONE/DOLOMITE MINE OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY

For those mines for which the Division of Mines has not assigned a state mine number, a letter designation is used (example: Cn-A).

County	Name of operator	Name of mine or quarry	Township	Geological unit	Type and principal use	State mine number
Adams	Davon, Inc.	Plum Run Stone Division	Meigs	Peebles, Greenfield, & Tymochtee Dolomites (Silurian)	crushed stone — riprap, flux stone, stone for portland cement concrete, road construction/resurfacing, railroad ballast, rock dust, sorbent, industrial uses, aglime	Ads-1
	Holloway Sand & Gravel Co., Inc. Standard Lafarge	Holloway Sand & Gravel Co., Inc. Adams	Tiffin Franklin	Niagaran dolomite (Silurian)	crushed stone — unspecified	Ads-H
					crushed stone — riprap, stone for portland cement concrete, stone for asphaltic concrete, road construction/resurfacing, commercial building	Ads-6
Allen	Bluffton Stone Co. National Lime & Stone Co.	Bluffton Stone Co. Lima Plant	Richland Bath	Tymochtee Dolomite (Silurian) Silurian	crushed stone — unspecified	An-1
	Suever Stone Co., Inc.	Suever Stone Co., Inc.	Spencer	Tymochtee Dolomite (Silurian)	crushed stone — riprap, commercial building, railroad ballast; aglime	An-3 ¹
					crushed stone — stone for portland cement concrete, stone for asphaltic concrete, road construction/resurfacing, commercial building; aglime	An-4
Athens	R. A. Eberts Co., Inc. Con-Ag, Inc.	Diamond Stone Con-Ag, Inc.	Lee Noble	Cedarville Dolomite (Silurian)	crushed stone — unspecified	As-533
Auglaize					crushed stone — riprap, stone for portland cement concrete, stone for asphaltic concrete, road construction/resurfacing; aglime	Ae-31
	National Lime & Stone Co.	Buckland Plant	Moulton	Silurian	crushed stone — riprap, commercial building; aglime	Ae-10
Belmont	Ayers Limestone Quarry, Inc.	Ayers Limestone Quarry, Inc.	Pease	Permian	crushed stone — riprap, road construction/resurfacing	Bt-716
	Black Gold Recovery, Inc.	Black Gold Recovery Limestone	Richland	Fishpot limestone (Pennsylvanian)	crushed stone — riprap, road construction/resurfacing	Bt-1192 ²
	Lakeland Construction Frank Widmor Coal Co.	Lakeland Construction Frank Widmor Coal Co.	Richland Pulney		crushed stone — commercial building	Bt-1192 ²
Clark	American Aggregates Corp.	Springfield #423	Springfield	Cedarville Dolomite (Silurian)	crushed stone — riprap	Bt-1190
Clinton	Melvin Stone Co.	Melvin Stone Co.	Richland	Guelph Dolomite (Silurian)	crushed stone — road construction/resurfacing	Ck-1
					crushed stone — riprap, stone for portland cement concrete, stone for asphaltic concrete, road construction/resurfacing, commercial building, residential/farm use; aglime	Cln-1
Coshocton	All Stone Co. Sidwell Bros., Inc. (dba Stonehill Quarry, Inc.)	All Stone Co. Stonehill Quarry	White Eyes Bedford, Perry	Putnam Hill limestone (Pennsylvanian)	unspecified	Cn-A
	National Lime & Stone Co.	Bucyrus Plant	Holmes	Devonian	crushed stone — stone for asphaltic concrete, road construction/resurfacing	Cn-830
Crawford					crushed stone — riprap, flux stone, commercial building, railroad ballast, extenders, fillers; aglime	Cd-1
	American Aggregates Corp. American Aggregates Corp.	Fort Jefferson #424 Shawnee # 225	Butler Concord	Cedarville Dolomite (Silurian) Columbus & Delaware Limestones (Devonian)	crushed stone — road construction/resurfacing	Dke-1
Darke					crushed stone — road construction/resurfacing	Del-4
Delaware		Delaware Stone #227	Scioto	Columbus Limestone (Devonian)	crushed stone — road construction/resurfacing	Del-3

¹Information for An-3 includes information for An-11.

²This mine was operated 1st quarter 1992 by Lakeland Construction, and 2nd through 4th quarters by Black Gold Recovery, Inc.

1992 OHIO DIRECTORY OF LIMESTONE/DOLOMITE MINE OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY — Continued

County	Name of operator	Name of mine or quarry	Township	Geological unit	Type and principal use	State mine number
Delaware (cont.)	National Lime & Stone Co. Penry Stone Co.	Delaware Plant Penry Stone Co.	Scioto Radnor	Columbus & Delaware Limestones (Devonian) Columbus & Delaware Limestones (Devonian)	crushed stone — riprap, flux stone, commercial building, railroad ballast, aglime crushed stone — unspecified	Del-5 Del-2
Erie	Erie Blacktop, Inc. Kellstone, Inc. Rogers Group, Inc. (dba Sandusky Crushed Stone Co.)	Erie Blacktop Quarry Kellstone, Inc. Sandusky Crushed Stone Co.	Margaretta Kelley Island Groton	Columbus & Delaware Limestones (Devonian)	crushed stone — riprap, stone for portland cement concrete, stone for asphaltic concrete, road construction/resurfacing crushed stone — unspecified crushed stone — riprap, stone for portland cement concrete, stone for asphaltic concrete, road construction/resurfacing, commercial building, railroad ballast, aglime; stone sand, stone concrete blocks, stone septic tanks	Ee-27 Ee-K Ee-11
Fayette	Wagner Quarries Co. American Aggregates Corp. Melvin Stone Co.	Wagner Quarries Co. Blue Rock Limestone #427 Melvin Stone Co.	Perkins Perry Green	upper Columbus & Delaware Limestones (Devonian) Tymochtee Dolomite (Silurian) Tymochtee Dolomite (Silurian)	crushed stone — road construction/resurfacing crushed stone — road construction/resurfacing crushed stone — road construction/resurfacing; commercial building, residential/farm use, aglime	Ee-1 Fe-2 Fe-1
Franklin	American Aggregates Corp.	Columbus Limestone #221	Franklin, Jackson, Marion	Columbus Limestone (Devonian)	crushed stone — road construction/resurfacing	Fh-53
	Olen Corp.	Marble Cliff #224 Hilliard Plant #1	Norwich Brown	Columbus & Delaware Limestones (Devonian) Salina Dolomite (Silurian)	crushed stone — road construction/resurfacing	Fh-2
Greene	American Aggregates Corp.	Beavercreek Limestone #426 Cedarville Limestone #425 Fairborn Limestone #431 Southwestern Portland Cement Co.	Bath Cedarville Sugar Creek Bath	Cedarville Dolomite (Silurian) Cedarville Dolomite (Silurian) upper Brassfield Limestone (Silurian)	crushed stone — road construction/resurfacing crushed stone — road construction/resurfacing stone for portland cement manufacture	Ge-45 Ge-17 Ge-25 Ge-9
Guernsey Hancock	King Limestone, Inc. National Lime & Stone Co.	King Limestone, Inc. Findlay Plant	Spencer Liberty	Fishpot limestone (Pennsylvanian) Niagaran dolomite (Silurian)	crushed stone — road construction/resurfacing crushed stone — riprap, commercial building, railroad ballast, aglime	Gy-309 ^a Hk-7
Hardin	Hardin Quarry Co., Inc.	Hardin Quarry Co., Inc.	Pleasant	Tymochtee Dolomite (Silurian)	crushed stone — riprap, road construction/resurfacing, commercial building; aglime	Hdn-2
Highland	Davon, Inc.	Highland Stone Division	Hamer	Brassfield & Dayton Limestones (Silurian)	crushed stone — riprap, stone for portland cement concrete, road construction/resurfacing, other; aglime	Hd-2
	Marshall Quarry, Inc.	Marshall Quarry, Inc.	Marshall		crushed stone — road construction/resurfacing, unspecified	Hd-4
Holmes	Ohio Asphaltic Limestone Corp.	Ohio Asphaltic Limestone Corp.	Union		crushed stone — riprap, stone for asphaltic concrete, road construction/resurfacing; aglime	Hd-3
Jackson	Holmes Limestone Co. Sands Hill Coal Co., Inc.	241 Plant Sands Hill Strip #4	Hardy Milton	Putnam Hill limestone (Pennsylvanian)	crushed stone — road construction/resurfacing crushed stone — road construction/resurfacing; aglime	Hs-67 Jkn-SH

Lawrence	Waterloo Coal Co., Inc.	Waterloo Zoar	Bloomfield, Madison	Vanport limestone (Pennsylvanian)	Jkn-367
	Belville Mining Co., Inc.	Belville Mining Co., Inc.	Washington		Le-B
Logan	American Aggregates Corp.	East Liberty	Perry		Lgn-1
	C. E. Duff & Son, Inc.	C. E. Duff & Son, Inc.	Richland		Lgn-15
Lucas	Northwood Stone & Asphalt Co.	Northwood Stone & Asphalt Co.	Richland	Tymochtee Dolomite (Silurian)	Lgn-2
	E.M.A.I. Corp. (dba ESSROC Materials, Inc.)	ESSROC Materials, Inc.	Sylvania		Ls-12
	The France Stone Co.	Sylvania	Sylvania	Detroit River Group (Devonian)	Ls-3
	Stoneco, Inc.	Waterville	Waterville	Tymochtee Dolomite (Silurian)	Ls-1
		Maumee Quarry	Waynesfield		Ls-2
Mahoning	E.M.A.I. Corp. (dba ESSROC Materials, Inc.)	Bessemer Pit	Poland	Vanport limestone (Pennsylvanian)	Mg-608
	Honey Creek Stone Co.	Carbon Pit	Poland		Mg-EM
	Petersburg Stone Co.	Honey Creek Stone Co.	Springfield	Vanport limestone (Pennsylvanian)	Mg-54
Marion	J. M. Hamilton & Sons Co., Inc.	Petersburg Stone Co.	Springfield	Vanport limestone (Pennsylvanian)	Mg-629
	National Lime & Stone Co.	J. M. Hamilton & Sons Co., Inc.	Marion		Mn-2
	Tri-County Limestone Co.	Marion Plant	Grand Prairie, Marion	Columbus & Delaware Limestones (Devonian)	Mn-3
Mercer	Stoneco, Inc.	Tri-County Limestone Co.	Grand	Niagaran dolomite (Silurian)	Mn-1
	Barrett Paving Materials, Inc.	Celina Quarry	Jefferson	Niagaran dolomite (Silurian)	Mr-1
Miami	Gregory Stone Co., Inc.	Ludlow	Union	Brassfield Limestone (Silurian)	Mi-502
	Piqua Materials, Inc.	Gregory Quarry	Union		Mi-16
Monroe	C. F. Poeppelman, Inc.	Piqua Minerals Division	Springcreek	Brassfield Limestone, Dayton & Laurel Dolomites (Silurian)	Mi-1
	Christman Quarry	C. F. Poeppelman, Inc.	Newberry	Cedarville Dolomite (Silurian)	Mi-10
Montgomery	Rubel Quarry, Inc.	Christman Quarry	Seneca		Me-C
	American Aggregates Corp.	Rubel Quarry, Inc.	Seneca		Me-509
		Phillipsburg Limestone #421	Clay		My-1
		Dayton Limestone #420	Madison		My-23

³Production only, no sales.⁴See also Muskingum County.

1992 OHIO DIRECTORY OF LIMESTONE/DOLOMITE MINE OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY — Continued

County	Name of operator	Name of mine or quarry	Township	Geological unit	Type and principal use	State mine number
Montgomery (cont.)	American Aggregates Corp. (cont.)	Huber Heights Limestone #432	Van Buren	Cedarville Dolomite (Silurian)	crushed stone — road construction/resurfacing	My-32
	Quarry Trails	Quarry Trails	Madison	Benwood Limestone (Pennsylvanian)	crushed stone — unspecified	My-Q
	Central Ohio Coal Co.	Coal Hill	Meigs		crushed stone — road construction/resurfacing	Ne-C ⁵
	Chesterhill Stone Co.	Plant #1	Newton	Maxville Limestone (Mississippian)	crushed stone — riprap, stone for portland cement concrete, stone for asphaltic concrete, road construction/resurfacing, commercial building, railroad ballast, other: stone for portland cement manufacture; aglime	Mum-106
Noble	King Limestone, Inc.	King Limestone, Inc.	Rich Hill	Fishpot limestone (Pennsylvanian)	crushed stone — road construction/resurfacing	G-309 ^s
	Midwest Portland Cement Corp.	Lyle Quarry	Newton	Maxville Limestone (Mississippian)	stone for portland cement manufacture	Mum-24
	Salt Creek Materials, Inc.	Salt Creek Materials, Inc.	Perry		crushed stone — road construction/resurfacing	Mum-269
	Sidwell Bros., Inc.	Sidwell Quarry	Newton	Fishpot limestone (Pennsylvanian)	crushed stone — stone for asphaltic concrete, road construction/resurfacing	Mum-104
Ottawa	Sharon Stone Co.	Sharon Stone Co.	Noble	Niagaran dolomite (Silurian)	crushed stone — road construction/resurfacing	Ne-S
	Zerger's Quarry	Zerger's Quarry	Stock		unspecified	Ne-86
	GenLime Group, L.P.	GenLime Group, L.P.	Clay		crushed stone — road construction/resurfacing; lime (burned stone) — building, chemical and industrial	Oa-1
Paulding	Edward Kraemer & Sons, Inc.	White Rock Quarry	Allen	Guelph Dolomite (Silurian)	crushed stone — riprap, flux stone, stone for portland cement concrete, stone for asphaltic concrete, road construction/resurfacing; aglime	Oa-6 ⁷
	Standard Lafarge	Marblehead	Danbury	Columbus Limestone (Devonian)	crushed stone — riprap, stone for portland cement concrete, stone for asphaltic concrete, road construction/resurfacing, commercial building	Oa-7
	Stoneco, Inc.	Rocky Ridge	Benton	Guelph Dolomite (Silurian)	crushed stone — riprap, stone for portland cement concrete, stone for asphaltic concrete, road construction/resurfacing	Oa-14
	White Rock Quarry, L.P. Division of U.S. Aggregates, Inc.	White Rock Quarry	Allen		crushed stone — riprap, stone for portland cement concrete, stone for asphaltic concrete, dike job, aglime	Oa-6 ⁷
Perry	The France Stone Co.	Paulding	Crane	Tennile Creek Dolomite (Devonian)	crushed stone — riprap, road construction/resurfacing	Pg-7
	Lafarge Corp.	Paulding Quarry	Crane	Detroit River Group & Dundee Limestone (Devonian)	stone for portland cement manufacture	Pg-1
	Stoneco, Inc.	Auglaize Quarry	Auglaize	Detroit River Group & Dundee Limestone (Devonian)	crushed stone — riprap, flux stone, stone for portland cement concrete, stone for asphaltic concrete, road construction/resurfacing, commercial building, railroad ballast, other; aglime	Pg-2
	Maxville Quarries, Inc.	Maxville Quarries, Inc.	Monday Creek	Maxville Limestone (Mississippian)	crushed stone — road construction/resurfacing	Py-235
Pickaway	Melvin Stone Co.	Melvin Stone Co.	Monday Creek	Columbus Limestone (Devonian)	crushed stone — road construction/resurfacing	Py-343
			Perry		crushed stone — riprap, stone for portland cement concrete, road construction/resurfacing, commercial building, residential/farm use	Pky-4

Pike	Latham Limestone, Inc.	Latham Limestone, Inc.	Mifflin	Greenfield Dolomite (Silurian)	crushed stone — riprap, road construction/resurfacing; aglime	Pke-13
Preble	Wyosong Stone Co.	Wyosong Stone Co.	Twin		crushed stone — riprap, road construction/resurfacing, ice control; dimension stone	Pre-5
Putnam	Putnam Stone Co.	Putnam Stone Co.	Pleasant, Riley	Silurian	crushed stone — riprap, stone for portland cement concrete, road construction/resurfacing	Pm-2
Sandusky	Gottiron Bros. Co.	Gottiron Bros. Co.	Sandusky	Niagaran dolomite (Silurian)	crushed stone — stone for portland cement concrete, road construction/resurfacing, commercial building, fill	Sy-5
	Martin Marietta Magnesia Specialties, Inc.	Woodville Quarry	Woodville	Guelph Dolomite (Silurian)	crushed stone — riprap, flux stone; lime (burned stone) — chemical and industrial	Sy-1
	Steelley Quarry Products U.S., Inc., Ohio Lime Co.	Woodville Plant	Woodville	Silurian	crushed stone — flux stone, road construction/resurfacing; aglime; lime (burned stone) — chemical and industrial, other	Sy-3 ^a
Seneca	The France Stone Co.	Bloomville	Bloom	Columbus & Delaware Limestones (Devonian)	crushed stone — riprap, road construction/resurfacing; aglime	Sa-3
	Maple Grove Stone Co. (dba M & B Asphalt Co.)	Flat Rock	Thompson	Columbus & Delaware Limestones (Devonian)	crushed stone — riprap, road construction/resurfacing; aglime	Sa-1
	North Shore Stone Quarries, Inc.	Maple Grove Stone Co.	Liberty		crushed stone — stone for portland cement concrete, stone for asphaltic concrete, road construction/resurfacing, commercial building	Sa-2
Shelby	Miami River Stone Co.	North Shore Stone Quarries, Inc.	Thompson	Cedarville Dolomite (Silurian)	crushed stone — riprap; dimension stone	Sa-8
	Sidney Sand & Gravel Co.	Miami River Stone Co.	Orange		crushed stone — riprap, road construction/resurfacing, railroad ballast, other	Shy-6
	Spring Creek Corp.	Rock Run Quarry	Washington		crushed stone — riprap, road construction/resurfacing	Shy-16
Tuscarawas	Kimble Clay & Limestone Co.	River Quarry	Clinton	Vanport limestone (Pennsylvanian)	crushed stone — road construction/resurfacing, commercial building	Shy-15
	Sugarcreek Clay & Limestone, Inc.	Kimble Clay & Limestone Co.	Dover		crushed stone — riprap, road construction/resurfacing	Ts-1818
	Northwood Stone & Asphalt Co.	Sugarcreek Clay & Limestone, Inc.	Sugar Creek		crushed stone — road construction/resurfacing, unspecified	Ts-1928
Union	Union Aggregates Co.	Rockhold Division	York		crushed stone — riprap, stone for portland cement concrete, stone for asphaltic concrete, road construction/resurfacing; aglime	Un-1
Van Wert	Ridge Township Quarry	Union Limestone Plant	Mill Creek	Columbus Limestone (Devonian)	crushed stone — riprap, other, aglime	Un-2
	Stonoco, Inc.	Ridge Township Quarry	Ridge	Tymochtee Dolomite (Silurian)	crushed stone — road construction/resurfacing	Vt-7
	Suever Stone Co., Inc.	Scott Quarry	Union		crushed stone — riprap, stone for portland cement concrete, stone for asphaltic concrete, road construction/resurfacing, other	Vt-3
	G & M Supply, Inc. (dba Clinton Stone, Inc.)	Delphos Quarry	Washington	Tymochtee Dolomite (Silurian)	crushed stone — riprap, stone for portland cement concrete, stone for asphaltic concrete, road construction/resurfacing, commercial building, railroad ballast, sewer project	Vt-1
Vinton	Quality Stone Co.	Sands Hill	Clinton		unspecified	Vn-174
	Quality Stone Co.	Quality Stone Co.	Elk		unspecified	Vn-190
		Route 32	Clinton		unspecified	Vn-193

^aAll sales and production are from Muskingum County.

^bSee also Guernsey County.

^cThis mine was operated 1st quarter 1992 by Edward Kraemer & Sons, Inc., and 2nd through 4th quarters by White Rock Quarry, L.P.

^dInformation for Sy-3 includes information for Sy-4.

1992 OHIO DIRECTORY OF LIMESTONE/DOLOMITE MINE OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY — Continued

County	Name of operator	Name of mine or quarry	Township	Geological unit	Type and principal use	State mine number
Wayne	Holmes Limestone Co.	Wayne Mines	Franklin	Putnam Hill limestone (Pennsylvanian)	crushed stone — road construction/resurfacing	Hs-79 ^a
Wood	The France Stone Co.	Custar	Milton		crushed stone — riprap, road construction/resurfacing; aglime	Wd-5
	MacRitchie Materials, Inc.	MacRitchie Materials, Inc.	Perry	Lockport & Salina Dolomites (Silurian)	unspecified	Wd-1
	Stoneco. Inc.	Lime City Quarry	Perrysburg		crushed stone — riprap, stone for portland cement concrete, stone for asphaltic concrete, road construction/resurfacing, other; aglime	Wd-6
		Portage Quarry	Portage	Greenfield & Lockport Dolomites (Silurian)	crushed stone — riprap, stone for portland cement concrete, stone for asphaltic concrete, road construction/resurfacing, other	Wd-11
Wyandot	McCarthy Stone Quarry	McCarthy Stone Quarry	Pitt	Bass Islands Group (Silurian)	crushed stone — stone for asphaltic concrete, road construction/resurfacing	Wt-3
	National Lime & Stone Co.	Carey Plant	Crawford	Silurian	crushed stone — riprap, flux stone, commercial building, railroad ballast, extenders, fillers; aglime; lime (burned stone) — chemical and industrial	Wt-1
	Wyandot Dolomite, Inc.	Wyandot Dolomite, Inc.	Crawford	Greenfield & Guelph Dolomites (Silurian)	crushed stone — riprap, flux stone, stone for portland cement concrete, stone for asphaltic concrete, road construction/resurfacing, commercial building, railroad ballast, manufacturing sand, sinter; aglime	Wt-8

^aAll sales and production are from Wayne County.

1992 SAND AND GRAVEL COMPANIES WITH SALES OR PRODUCTION

Company	No. of operations	Sales (tons)	Production (tons)	Company	No. of operations	Sales (tons)	Production (tons)
Agg Rok Materials, Div. of Wapak Sand & Gravel Co.	1	535,844	525,151	Erie Sand & Gravel Co.	1 dredger	28,964	28,964
William Albert, Inc.	1	26,632	29,550	Craig Fankhauser	1	8,159	8,159
Alden Sand & Gravel Co.	1	300	300	Feikert Sand & Gravel, Inc.	1	101,363	101,363
Allgeier & Son, Inc.	1	40,000	40,000	Fenner Sand & Gravel, Inc.	1	188,000	188,000
American Aggregates Corp.	18	7,568,654	7,478,781	Fleckenstein Farm Gravel Pit	1	3,629	3,629
American Sand & Gravel	3	338,104	338,104	Fleming Construction Co., Inc.	1	200	200
Apache Aggregate & Paving Co.	1	134,564	80,434	Flesher Sand & Gravel, Inc.	1	53,463	53,463
Ashcraft Sand & Gravel, Inc.	1	43,161	43,161	Fourman's Sand & Gravel, Inc.	1	33,966	33,966
Atlantic Investment Co.	1	34,929	34,929	Friendsville Sand, L.P.	1	566	566
Atlas Towing Co.	1	11,009	11,009	Frye Sand & Gravel, Inc.	1	2,262	2,262
Aurora Sand & Gravel, Inc.	1	122,703	147,184	Ganges Gravel	1	572	572
B & D Paving Co.	1	24,527	24,527	John L. Garber Materials, Inc.	1	224,750	228,000
Baker Sand, Inc.	1	710,318	710,318	Al Gasser Excavating, Inc.	1	2,425	2,425
Barrett Paving Materials, Inc.	1	198,685	198,685	Gerken Materials, Inc.	1	157,410	157,410
Beaver Creek Resources, Inc.	1	231	231	Gibson Sand & Gravel Co.	1	1,048	1,048
Beck Sand & Gravel, Inc.	1	200,712	200,712	David B. Good	1	2,450	2,450
Becky Lane Trucking, Inc.	1	22,054	22,054	Goodwin Sand & Gravel, Inc.	1	83,471	136,000
Paul D. Beery Trucking Co.	1	3,563	2,863	The Gravel Co.	1	152,847	152,847
Benco Leasing, Inc.	1	32,800	57,400	Green Oaks Potting Products, Inc.	1	2,236	2,236
Black Top Contracting, Inc.	1	7,279	7,279	Harrison Sand & Gravel Co.	1	58,923	81,800
Bolin & Bartley, Inc.	2	59,128	49,934	Haubeil & Sons Asphalt & Materials, Inc.	1	39,037	39,037
Elmer Borchardt, Inc.	1	312	312	Haueter Sand & Gravel, Inc.	2	199,932	199,932
D. H. Bowman & Sons, Inc.	1	28,619	36,125	Heiser Sand & Gravel	1	27,081	17,219
Boyd Gravel Co.	2	399,474	489,436	Paul N. Herdman	1	1,200	1,200
Briggs Sand & Gravel, Inc.	1	9,125	9,125	Hillsdale Sand & Gravel, Inc.	1	4,569	0
Broadway Sand & Gravel, Inc.	1	39,706	39,706	Hilltop Aggregate, Inc.	1	387,457	387,457
Broshear Contractors, Inc.	1	880	880	Hilltop Basic Resources, Inc.	2	1,163,174	843,935
Karl Brugmann Sand & Gravel, Inc.	1	48,211	48,211	Hilltop Basic Resources, Inc., dba Enon Washed Sand & Gravel Co.	1	239,693	203,713
Oscar Brugmann Sand & Gravel, Inc.	1	274,612	300,500	Hocking Valley Concrete, Inc.	1	75,000	75,000
Buckeye Excavating	1	33,989	33,989	William A. Hoffman, Jr.	1	3,415	3,415
James Bunnell, Inc.	3	362,530	362,530	R. E. Holland Excavating, Inc.	1	42,386	42,386
Burlington Sand & Gravel Co.	1	6,178	6,178	Tom Hollinger Excavating	1	236	194
Burrgett Industries, Inc.	1	38,699	38,699	Hugo Sand Co.	1	249,748	249,748
Canton Aggregate, Div. of Central Allied Enterprises, Inc.	2	360,171	360,171	Humphrey Farms	1	558	558
C. Carmical Sand & Gravel	1	250	250	Indian Creek Sand & Gravel Co.	1	3,803	3,803
Cedar Heights Clay Co., Division of Resco Products, Inc.	1	419	419	J. P. Sand & Gravel Co.	1	488,296	488,296
Jeff Chaney	1	8,769	8,769	Jarrett Sand Co.	1	6,006	6,006
Charlestown Sand & Gravel, Inc.	1	11,134	11,134	Jaymar, Inc.	1	101,072	101,072
Chattin Concrete	1	675	675	Jefferson Materials Co.	1	240,874	236,695
Chesterhill Stone Co.	1	272,983	261,695	Jimsco, Inc.	1	1,750	1,750
Chesterville Sand & Gravel Co., Inc.	1	79,213	79,213	Johnson Rd. Sand & Gravel, Inc.	1	23,027	23,027
Chillicothe Sand & Gravel Co.	1	336,196	336,196	John E. Jones Construction Co.	1	11,123	11,123
Cochran Transportation Services, Inc.	1	24,145	24,145	Joseph Sand & Gravel, Inc.	1	7,092	7,092
Cooper Sand & Gravel	1	152	0	Karg Sand & Gravel Co.	1	18,950	18,950
Coprolite Sand & Gravel Corp.	1	12,800	12,800	Keener Sand & Clay Co.	1	1,036	1,036
Cremeans Concrete & Supply	1	2,626	2,626	Kilbarger Construction, Inc.	1	2,385	2,385
R. A. Cruise Sand & Gravel, Inc.	1	58,081	58,081	Kinsman Sand & Gravel Co.	1	111,257	66,000
D & D Sand Bank	1	4,676	2,476	Kipp's Gravel Co., Inc.	1	144,858	144,858
D & W Sand & Gravel	1	4,947	4,947	Kirby's Sand & Gravel, Inc.	1	48,992	48,992
Darby Gravel Co.	2	2,723	2,723	L & I Natural Resources, Inc.	1	138,392	138,392
Demmy Construction, Inc.	1	14,861	14,861	L. & M. Excavators, Inc.	1	4,311	4,311
Demmy Sand & Gravel	1	5,791	5,791	Lake Hope Asphalt, Inc.	1	26,492	32,333
A. J. Diana Sons, Inc.	1	29,886	29,886	Lakeside Sand & Gravel Co.	1	241,597	212,435
Dingledine Basic Materials, Inc.	1	39,936	39,936	Lancaster Sand & Gravel Co.	1	592,266	532,867
Don's Dozer Service	1	1,088	1,088	Larkin Sewer Contractors, Inc.	1	11,431	19,714
James E. Downard	1	10,139	10,139	Lazy Acre Farms, Inc.	1	31,856	31,856
Dravo Basic Materials Co., Inc.	5	2,507,919	3,797,983	Bertha A. Leonard	1	400	200
Dry Creek Gravel Co.	2	252,000	252,000	Lerkis Asphalt Paving Co., Inc. & Subsidiary	1	100	100
C. E. Duff & Son, Inc.	3	84,993	84,993	Carroll Lifer Excavating, Inc.	1	173	173
Eaton Sand & Gravel Co.	1	1,000	1,000	Loxley Aggregates, Inc.	1	12,203	10,310
Daniel Ebbe Trucking	1	11,456	11,456	Luburgh, Inc.	1	15,525	15,525
David E. Edington	1	6,453	6,453	Lucky Sand & Gravel Co.	1	150,784	150,784
Elm Spring Farm	1	9,500	9,500	M. & G. Supply Co.	1	3,676	3,676
Embro, Inc.	1	42,856	42,856	M & J Sand & Gravel, Inc.	1	3,186	3,186
Erie Blacktop, Inc.	1	610	0	Donald Martin Contracting	1	557	557

1992 SAND AND GRAVEL COMPANIES WITH SALES OR PRODUCTION – Continued

Company	No. of operations	Sales (tons)	Production (tons)	Company	No. of operations	Sales (tons)	Production (tons)
Mason's Sand & Gravel Co.	1	82,610	82,610	Schloss Materials Co.	1	108,761	108,761
Massillon Materials, Inc.	2	325,087	325,087	Scioto Sand & Gravel	1	3,958	0
Massillon Washed Gravel Co.	1	256,034	256,034	Scioto Valley Resources	1	496,489	486,528
Maumee Haulers & Excavating, Inc.	1	35,311	35,311	Seaway Sand & Stone, Inc.	2	285,147	285,147
Bill McKeever Excavating, Inc.	1	654	654	Sam Serves	1	90,160	90,160
Mecco, Inc.	1	123,223	123,223	Seville Sand & Gravel, Inc.	1	364,972	364,972
Mechanicsburg Sand & Gravel, Inc.	1	175,343	161,385	Shamrock Materials, Inc.	1	330,515	330,515
Meigs County Commissioners	1	18,720	18,720	David A. Shay	1	35,000	35,000
Menuez Bros. Sand & Gravel, Inc.	1	252,824	252,824	R. W. Sidley, Inc.	2	69,000	122,050
Mesenburg Bros., Inc.	1	8,954	8,954	Sidney Sand & Gravel Co.	3	457,868	457,868
Mickley Gravel Co.	1	1,797	657	Simak Trucking, Inc.	1	30,063	30,063
Miller Bros. Gravel, Inc.	1	249,836	218,402	Small's Sand & Gravel, Inc.	1	407,589	407,589
Miller Sand & Gravel Co.	1	2,615	2,615	Sober Sand & Gravel Co.	1	34,100	20,000
Miller Sand Co.	1	5,652	5,652	Soehnlén Bros. Sand & Gravel Co.	1	57,670	62,294
Moore's Excavating Co.	1	65,046	64,914	Solomon's Mines, Inc.	1	38,986	38,986
Morrow Gravel Co.	2	385,000	385,000	Solon Excavators Sand & Gravel, Inc.	2	361,526	361,526
Muskingum River Gravel Co.	4	397,750	397,750	Soltis Sand & Gravel	1	11,664	11,664
National Aggregate, Inc.	1	162,053	147,391	Southern Ohio Aggregates, Inc.	4	8,000	8,000
National Lime & Stone Co.	4	351,022	431,604	Southern Ohio Sand & Gravel, Inc.	1	30,427	0
Neer's Sand & Gravel	1	129,704	127,435	Spring Creek Corp.	3	284,002	284,002
Nelson Sand & Gravel, Inc.	1	10,450	10,450	Spring Industries, Inc.	1	361,803	387,300
Newbury Sand & Gravel	1	215	215	Spring Run Farm & Gravel	1 ²	3,407	3,407
New Carlisle Sand & Gravel Co.	1	469	469	City of Springfield	1	13,000	13,000
New Generations, Inc.	1	8,410	8,410	Springfield Sand & Gravel Co.	1	616,331	616,331
Newton Asphalt	1	82,570	82,570	Standard Lafarge	4	1,253,096	1,313,099
Nick's Trucking	1	500	500	Stewart & Reichman, Inc.	1	60,609	60,609
Northern Ohio Materials, Inc.	1	298,984	298,984	Stillwater Sand & Gravel, Inc.	1	147,003	124,044
Northern Ohio Paving Co.	1	216,787	216,787	Stocker Sand & Gravel Co.	2	947,100	947,100
Northmont Sand & Gravel Co.	1	77,634	0	Stoneco, Inc.	1	263,547	263,547
North Ridge Materials	1 ¹	8,216	8,216	Sunshine Sand Co.	1	1,852	1,852
Carl E. Oeder & Sons Sand & Gravel	1	379,537	379,537	Teague Gravel Co., Inc.	1	77,296	77,296
Olen Corp.	3	2,158,684	2,330,379	Don Thompson Excavating, Inc.	1	12,720	12,720
Oneida Sand & Gravel, Inc.	1	69,605	84,730	Tipp Stone Co., Inc.	2	99,957	99,957
Osborne Materials Co.	1 dredger	126,923	126,923	Robert Tripp	1	200	0
Oster Sand & Gravel, Inc.	2	577,484	577,484	Tri-State Asphalt Productions	1	291,922	264,584
Ours Sand & Gravel	1	4,465	4,465	Trout Sand & Gravel Co.	1	49,555	49,555
Penn Eagle Coal Corp.	1	28	28	Tuffco Sand & Gravel, Inc.	1	69,068	78,662
Penry Stone Co.	1	31,930	31,930	Union Aggregates Co.	1	54,391	49,953
Phillips Sand & Gravel	1	389,622	389,622	V.I.P. Contractors, Inc.	1	2,250	2,250
Portage Lakes Sand & Gravel Co.	1	191,717	191,717	Valley Materials Co.	1	55,997	55,997
Prairie Lane Sand & Gravel Co.	1	149,193	149,193	Van Wey Sand & Gravel, Inc.	1	373,640	398,000
Precision Aggregate, Inc.	1	93,012	122,177	Ralph C. Wagner & Sons	1	50	50
Quality Ready Mix, Inc.	1	59,776	146,696	Ward Materials, Inc.	1	46,369	44,869
R & S, Inc.	1	43,570	43,570	Don Wartko Construction, Inc.	1	847	847
Rack Sand, Inc.	1	95,680	95,680	Washington County Engineer	1	4,631	4,631
Rainbow Sand & Gravel, Inc.	1	98,480	98,480	Watson Gravel, Inc.	4	1,575,680	1,575,383
Red Brush Peat Co.	1	2,451	2,451	Weber Aggregates	1	36,261	36,261
Richards & Son, Inc.	1	741,530	741,530	Weber Sand & Gravel, Inc.	1	208,890	208,890
Richard Farms, Inc.	1	32,576	32,576	Weidle Sand & Gravel, Inc.	2	259,491	259,491
Richards Service Garage	1	200	200	Welch Sand & Gravel, Inc.	3	698,380	698,380
Ries Sand & Gravel	1	3,827	3,827	Mark Williams Blacktop Co., Inc.	1	14,397	31,564
Riverside Sand & Gravel Co., Inc.	1	31,532	31,532	Eugene T. Wilson	1	338	338
Gary Roberts Excavating	1	1,578	1,578	Wise Gravel	1	5,480	5,480
Rogers Group, Inc., dba Norwalk	1	127,179	117,784	Wysong Gravel Co.	2	263,220	263,220
Sand & Gravel	1	122,149	120,127	X L Sand & Gravel	1	79,400	79,400
Ross County Gravel Co.	1			York Road Gravel Co.	1	13,943	13,943
Rubber City Sand & Gravel Co.	1	160,219	160,219	Young's Sand & Gravel Co.	2	252,750	252,750
Rupp Construction, Inc.	1	214,587	214,587	Zink Petroleum Corp., dba State Rte.	1	333,152	333,152
S & S Aggregate, Inc.	5	703,675	703,675	416 Sand & Gravel	1	95,905	95,905
G. M. Sader Excavating & Paving, Inc.	1	21,079	21,079	Zollinger Sand & Gravel Co.	1		
Salt Creek Materials, Inc.	1	2,431	0				
Samco, Inc.	1	442,884	442,884	TOTAL: 254 companies	324	44,745,704	45,916,298
Sandman Sand & Stone, Inc.	1	160,691	160,691				
Sant Sand & Gravel, Inc.	1	80,055	73,545				
Michael B. Sayers	1	3,460	3,460				
Guy Schieve	1	960	960				

¹This mine was operated 2nd through 4th quarter 1992 by Simak Trucking, Inc. and is not included in the total number of mines.²This mine was operated 2nd through 4th quarter 1992 by Jeff Chaney and is not included in the total number of mines.

1992 OHIO DIRECTORY OF LAKE ERIE SAND AND GRAVEL DREDGERS

Name of operator	Permitted dredging areas
Erie Sand & Gravel Co.	Fairport, Vermilion-Lorain Area "A," Vermilion-Lorain Area "B"
Osborne Materials Co.	Fairport, Vermilion-Lorain Area "A," Vermilion-Lorain Area "B"

1992 OHIO DIRECTORY OF SAND AND GRAVEL MINING OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY

For those mines for which the Division of Mines has not assigned a state mine number, a letter designation is used (example: Ald-G).

County	Name of operator	Name of pit	Township	Type and principal use	State mine number
Allen	Ward Materials, Inc.	Ward Materials, Inc.	Monroe	sand — asphaltic concrete, filtration gravel — building, filtration, unspecified	An-15
Ashland	Bolin & Bartley, Inc. David B. Good	Simington Rd. David B. Good	Montgomery Jackson	gravel — building sand — bank run	Ald-16 Ald-G
	Ries Sand & Gravel	Ries Sand & Gravel	Mohican	gravel — bank run sand — building, road construction/resurfacing	Ald-9
	Young's Sand & Gravel Co.	Sprang	Green	gravel — building, road construction/resurfacing, other	Ald-7
		Young's Sand & Gravel Co.	Green	sand — building, road construction/resurfacing, other	Ald-15
Ashtabula	Frye Sand & Gravel, Inc.	Frye Sand & Gravel, Inc.	Denmark	gravel — unspecified sand — unspecified	Asa-10
	Kinsman Sand & Gravel Co.	Kinsman Sand & Gravel Co.	Wayne	sand — unspecified gravel — unspecified	Asa-17
	Nelson Sand & Gravel, Inc. North Ridge Materials	Nelson Sand & Gravel, Inc. North Ridge Materials	Kingsville Kingsville	gravel — building sand — building	Asa-N Asa-18 ¹
	R. W. Sidley, Inc.	Conneaut Pit	Kingsville	gravel — building	Asa-15
	Simak Trucking, Inc.	Simak Trucking, Inc.	Kingsville	sand — building, portland cement concrete, ice control gravel — building, filtration, pipe bedding sand — building, asphaltic concrete, filtration	Asa-18 ¹
Athens	Black Top Contracting, Inc.	Black Top #1	Rome	gravel — asphaltic concrete, road construction/resurfacing	As-588
	Cochran Transportation Services, Inc.	Cochran Transportation Services, Inc.	Dover	gravel — asphaltic concrete, road construction/resurfacing sand — building	As-595
	Lake Hope Asphalt, Inc.	Lake Hope Asphalt, Inc.	York	gravel — building sand — asphaltic concrete, other	As-1161
	Weber Aggregates	Weber Aggregates	Rome	gravel — asphaltic concrete, other sand — portland cement concrete, unspecified gravel — portland cement concrete, road construction/resurfacing, unspecified	As-W
Auglaize	Joseph Sand & Gravel, Inc. National Lime & Stone Co.	Joseph Sand & Gravel, Inc. Wapakoneta Plant	Union Union	gravel — fill sand — building, portland cement concrete gravel — portland cement concrete	Ae-23 Ae-30
	Quality Ready Mix, Inc.	Quality Pit	Pusheta	sand — portland cement concrete gravel — portland cement concrete	Ae-16
Belmont	Tri-State Asphalt Productions	Tri-State Asphalt Productions	Mead	sand — portland cement concrete, asphaltic concrete, fill gravel — portland cement concrete, asphaltic concrete, road construction/resurfacing, fill	Bt-74
Butler	American Aggregates Corp.	Fairfield #711 Hamilton #710	Fairfield St. Clair	sand — road construction/resurfacing gravel — road construction/resurfacing sand — road construction/resurfacing gravel — road construction/resurfacing	Br-35 Br-5

¹This mine was operated 1st quarter 1992 by North Ridge Materials, and 2nd through 4th quarters by Simak Trucking, Inc.

County	Name of operator	Name of pit	Township	Type and principal use	State mine number
Butler (cont.)	Broshear Contractors, Inc.	Ross Township Gravel	Ross	sand — unspecified gravel — unspecified sand — building	Br-48
	Dingledine Basic Materials, Inc.	Dingledine Basic Materials, Inc.	Milford	gravel — building, road construction/resurfacing, other gravel — road construction/resurfacing	Br-50
	Dravo Basic Materials Co., Inc.	Ross Plant	Ross	gravel — road construction/resurfacing	Br-29
	The Gravel Co.	New Miami Pit	St. Clair	sand — unspecified gravel — unspecified gravel — building, road construction/resurfacing, bank run sand — fill	Br-3
	Indian Creek Sand & Gravel Co. Mecco, Inc.	Indian Creek Sand & Gravel Co. Mecco, Inc.	Ross Lemon	gravel — building, road construction/resurfacing, fill	Br-40 Br-15
	Shamrock Materials, Inc.	Shamrock Materials, Inc.	Madison	sand — unspecified gravel — unspecified sand — unspecified gravel — unspecified sand — building	Br-52
	Southern Ohio Aggregates, Inc.	Southern Ohio Aggregates, Inc.	St. Clair	gravel — unspecified sand — building	Br-S
	V.I.P. Contractors, Inc.	V.I.P. Contractors, Inc.	St. Clair	gravel — building	Br-36
	Watson Gravel, Inc.	Watson Pit	Fairfield	sand — building, portland cement concrete, asphaltic concrete, fill gravel — building, portland cement concrete, road construction/resurfacing	Br-47
	Weidle Sand & Gravel, Inc.	Weidle Sand & Gravel, Inc.	Madison	sand — unspecified gravel — unspecified sand — building	Br-6
Carroll	Weich Sand & Gravel, Inc.	Schlichter Pit	Fairfield	gravel — building	Br-38
	National Aggregate, Inc.	National Aggregate, Inc.	Brown	sand — unspecified gravel — unspecified sand — road construction/resurfacing	Cl-N
	Oneida Sand & Gravel, Inc.	Oneida Sand & Gravel, Inc.	Brown	gravel — road construction/resurfacing	Cl-204
	American Aggregates Corp.	Urbana #215	Urbana	sand — road construction/resurfacing	Cpn-1
	D & W Sand & Gravel	D & W Sand & Gravel	Union	gravel — road construction/resurfacing	Cpn-21
	Bill McKeever Excavating Mechanicsburg Sand & Gravel, Inc.	Bill McKeever Excavating Mechanicsburg Sand & Gravel, Inc.	Urbana Union	gravel — unspecified gravel — driveway use sand — unspecified gravel — unspecified sand — building, unspecified gravel — building, unspecified	Cpn-M Cpn-22
	Moore's Excavating Co.	Moore's Excavating Co.	Salem	sand — building, unspecified gravel — building, unspecified	Cpn-20
	American Aggregates Corp.	Fairborn #413	Bethel	sand — road construction/resurfacing	Cl-13
	Barrett Paving Materials, Inc.	Fairborn #141	Mad River	gravel — road construction/resurfacing sand — asphaltic concrete	Cl-28
	Demmy Construction, Inc.	Kieffer Pit	Mad River	gravel — asphaltic concrete sand — building	Cl-501
Clark	Demmy Sand & Gravel Hilltop Basic Resources, Inc. (dba Enon Washed Sand & Gravel Co.)	Demmy Sand & Gravel Enon Washed Sand & Gravel Co.	Mad River Bethel	gravel — building sand — building	Cl-502 Cl-3
	Hilltop Basic Resources, Inc.	Fairborn Aggregate Plant	Bethel	gravel — building, portland cement concrete, asphaltic concrete, fill, base gravel — portland cement concrete, asphaltic concrete, fill, base	Ge-42
	City of Springfield Springfield Sand & Gravel Co.	City of Springfield Springfield Sand & Gravel Co.	German Springfield	sand — building, portland cement concrete, asphaltic concrete gravel — portland cement concrete, asphaltic concrete, fill, base gravel — road construction/resurfacing	Cl-7 Cl-25
	John E. Jones Construction Co.	John E. Jones Construction Co.	Washington	gravel — building, portland cement concrete, asphaltic concrete, road construction/resurfacing, fill, ice control	Ct-11
	Kipp's Gravel Co., Inc.	Kipp's Gravel Co., Inc.	Stonelick	sand — unspecified gravel — unspecified sand — unspecified gravel — unspecified	Ct-7
Champaign	Bill McKeever Excavating Mechanicsburg Sand & Gravel, Inc.	Bill McKeever Excavating Mechanicsburg Sand & Gravel, Inc.	Urbana Union	gravel — unspecified gravel — driveway use sand — unspecified gravel — unspecified sand — building, unspecified gravel — building, unspecified	Cpn-M Cpn-22
	Moore's Excavating Co.	Moore's Excavating Co.	Salem	sand — building, unspecified gravel — building, unspecified	Cpn-20
	American Aggregates Corp.	Fairborn #413	Bethel	sand — road construction/resurfacing	Cl-13
	Barrett Paving Materials, Inc.	Fairborn #141	Mad River	gravel — road construction/resurfacing sand — asphaltic concrete	Cl-28
	Demmy Construction, Inc.	Kieffer Pit	Mad River	gravel — asphaltic concrete sand — building	Cl-501
	Demmy Sand & Gravel Hilltop Basic Resources, Inc. (dba Enon Washed Sand & Gravel Co.)	Demmy Sand & Gravel Enon Washed Sand & Gravel Co.	Mad River Bethel	gravel — building sand — building	Cl-502 Cl-3
	Hilltop Basic Resources, Inc.	Fairborn Aggregate Plant	Bethel	gravel — building, portland cement concrete, asphaltic concrete, fill, base gravel — portland cement concrete, asphaltic concrete, fill, base	Ge-42
	City of Springfield Springfield Sand & Gravel Co.	City of Springfield Springfield Sand & Gravel Co.	German Springfield	sand — building, portland cement concrete, asphaltic concrete gravel — portland cement concrete, asphaltic concrete, fill, base gravel — road construction/resurfacing	Cl-7 Cl-25
	John E. Jones Construction Co.	John E. Jones Construction Co.	Washington	gravel — building, portland cement concrete, asphaltic concrete, road construction/resurfacing, fill, ice control	Ct-11
	Kipp's Gravel Co., Inc.	Kipp's Gravel Co., Inc.	Stonelick	sand — unspecified gravel — unspecified sand — unspecified gravel — unspecified	Ct-7
Clermont	John E. Jones Construction Co.	John E. Jones Construction Co.	Washington	gravel — unspecified gravel — unspecified sand — unspecified gravel — unspecified	Ct-11
	Kipp's Gravel Co., Inc.	Kipp's Gravel Co., Inc.	Stonelick	sand — unspecified gravel — unspecified	Ct-7

Columbiana	Beaver Creek Resources, Inc.	Beaver Creek Resources, Inc.	Salem	sand — bank run gravel — bank run	Ca-855
	New Generations, Inc.	Schell	Salem	sand — bedding material gravel — bedding material	Ca-982
	X L Sand & Gravel	X L Sand & Gravel	Middleton	sand — unspecified gravel — unspecified	Ca-881
Coshocton	William Albert, Inc.	William Albert, Inc.	Franklin	sand — building, road construction/resurfacing, filtration, other gravel — building, road construction/resurfacing, filtration, other	Cn-828
	Apache Aggregate & Paving Co.	Apache Aggregate & Paving Co.	Keene	sand — asphaltic concrete gravel — asphaltic concrete	Cn-783
	Boyd Gravel Co.	Boyd Gravel Co.	Bethlehem	sand — portland cement concrete, road construction/resurfacing, ice control gravel — building, portland cement concrete, road construction/ resurfacing, berm aggregate	Cn-694
Crawford	Gibson Sand & Gravel Co.	Gibson Sand & Gravel Co.	Jefferson	sand — unspecified gravel — unspecified	Cd-3
Darke	Fourman's Sand & Gravel, Inc.	Fourman's Sand & Gravel, Inc.	Greenville	sand — unspecified gravel — unspecified	Dke-4
	Tom Hollinger Excavating	Hollinger Gravel Plant	Harrison	gravel — unspecified gravel — farm ballast	Dke-10
Defiance	Hillsdale Sand & Gravel, Inc.	Hillsdale Sand & Gravel, Inc.	Farmer	gravel — road construction/resurfacing	De-2
Delaware	Michael B. Sayers	Michael B. Sayers	Scioto	gravel — sewer lines, fill	Del-S
Erie	Elmer Borchardt, Inc.	Elmer Borchardt, Inc.	Margaretta	sand — unspecified gravel — unspecified	Ee-18
	Jarrett Sand Co.	Jarrett Sand Co.	Groton	sand — fill	Ee-29
	Keener Sand & Clay Co.	Huron Plant	Huron	sand — foundry	Ee-5
	Mesenburg Bros., Inc.	Mesenburg Bros., Inc.	Milan	sand — bank run	Ee-24
	Miller Sand Co.	Miller Sand Co.	Margaretta	sand — fill	Ee-28
Fairfield	Paul D. Beery Trucking Co.	Paul D. Beery Trucking Co.	Berne	sand — unspecified gravel — unspecified	Fd-14
	James E. Downard	James E. Downard	Rush Creek	sand — fill	Fd-16
	Lancaster Sand & Gravel Co.	Lancaster Sand & Gravel Co.	Berne	gravel — building sand — building, portland cement concrete, asphaltic concrete gravel — building, asphaltic concrete	Fd-13
Franklin	Agg Rok Materials (Div. of Wapak Sand & Gravel Co.)	Agg Rok Materials	Franklin	sand — building, portland cement concrete, asphaltic concrete gravel — building, portland cement concrete, asphaltic concrete, road construction/resurfacing	Fn-36
	American Aggregates Corp.	Lockbourne #213	Hamilton	sand — road construction/resurfacing gravel — road construction/resurfacing	Fn-23
	J. P. Sand & Gravel Co.	Columbus #210	Marion	sand — road construction/resurfacing gravel — road construction/resurfacing	Fn-6
	L. & M. Excavators, Inc.	Westerville Industrial Park	Hamilton	sand — building gravel — building	Fn-52
	Mason's Sand & Gravel Co.	Mason's Sand & Gravel Co.	Blendon	sand — building gravel — building	Fn-54
	Olen Corp.	Hilliard Plant #1	Hamilton	sand — building gravel — building	Fn-11
	S & S Aggregate, Inc.	Columbus Plant #3	Brown	sand — building, portland cement concrete, asphaltic concrete gravel — building, road construction/resurfacing	Fn-43
	Sandman Sand & Stone, Inc.	Plant #1	Hamilton	sand — building, portland cement concrete, asphaltic concrete gravel — building, portland cement concrete, asphaltic concrete, road construction/resurfacing	Fn-58
Fulton	Sandman Sand & Stone, Inc.	Sandman Sand & Stone, Inc.	Hamilton	road construction/resurfacing sand — unspecified gravel — unspecified	Fn-24
			Swan Creek	sand — building, other	Ftn-S

1992 OHIO DIRECTORY OF SAND AND GRAVEL MINING OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY — Continued

County	Name of operator	Name of pit	Township	Type and principal use	State mine number
Gallia	Cedar Heights Clay Co. Div. of Resco Products, Inc. Cremeans Concrete & Supply Jaymar, Inc. Ours Sand & Gravel	Gallia Red Sand	Springfield	sand — landscaping gravel — fill, bank run sand — unspecified sand — unspecified	Ga-507
		Cremeans Concrete & Supply Jaymar, Inc. Ours Sand & Gravel	Addison Addison Ohio		Ga-626 Ga-J Ga-O
		Haueter Sand & Gravel, Inc.	Burton, Newbury	sand — building, portland cement concrete gravel — filtration, oversize sand — unspecified	Gea-29
		Haueter Sand & Gravel, Inc.	Auburn	gravel — unspecified sand — other sand — building gravel — building sand — fill	Gea-H Gea-N Gea-40
Geauga	Newbury Sand & Gravel Solon Excavators Sand & Gravel, Inc. Soltis Sand & Gravel Teague Gravel Co., Inc.	Newbury Sand & Gravel Trethewey	Burton, Newbury Auburn		
		Soltis Sand & Gravel	Parkman		Gea-9
		Teague Gravel Pit	Newbury	gravel — bank run, fill sand — building, road construction/resurfacing, filtration, nursery use gravel — building, road construction/resurfacing, filtration, other	Gea-35
		Haines Rd. #419 Xenia #414	Beaver Creek Beaver Creek	sand — road construction/resurfacing gravel — road construction/resurfacing sand — road construction/resurfacing gravel — road construction/resurfacing	Ge-32 Ge-33
Greene	American Aggregates Corp. Hilltop Basic Resources, Inc. Donald Martin Contracting Phillips Sand & Gravel Richards Service Garage Watson Gravel, Inc.	Spring Valley Gravel #434	Spring Valley	sand — road construction/resurfacing	Ge-42
		Fairborn Aggregate Plant	Bath	gravel — road construction/resurfacing	Ge-43
		Donald Martin Contracting Phillips Sand & Gravel	Spring Valley Beaver Creek	sand — building, portland cement concrete, asphaltic concrete gravel — pit run sand — unspecified	Ge-40 Ge-36
		Richards Service Garage	Xenia	gravel — unspecified sand — unspecified	Ge-R
Hamilton	Allgeier & Son, Inc. American Aggregates Corp. Ashcraft Sand & Gravel, Inc. James Bunnell, Inc. C. Carmical Sand & Gravel Dravo Basic Materials Co., Inc. Eaton Sand & Gravel Co.	Spring Valley	Spring Valley	gravel — building, portland cement concrete, asphaltic concrete resurfacing	Ge-38
		Allgeier & Son, Inc.	Miami	sand — building gravel — building	Hmn-AS1
		Harrison #712	Harrison	sand — road construction/resurfacing	Hmn-37
		Campbell Rd. #715	Harrison	gravel — road construction/resurfacing sand — road construction/resurfacing	Hmn-69
		Kilby Rd. #713	Whitewater	sand — road construction/resurfacing gravel — road construction/resurfacing	Hmn-AAC
		Ashcraft Sand & Gravel, Inc. James Bunnell, Inc.	Whitewater Harrison	gravel — building sand — other gravel — other sand — other	Hmn-54 Hmn-50
		James Bunnell, Inc.	Whitewater	sand — other gravel — other	Hmn-B
		James Bunnell, Inc.	Whitewater	sand — unspecified gravel — unspecified sand — unspecified	Hmn-59
		C. Carmical Sand & Gravel	Miami	gravel — unspecified	Hmn-C
		Newtown Plant	Anderson	sand — road construction/resurfacing gravel — road construction/resurfacing	Hmn-11 ¹
		Camp Dennison Plant	Symmes	sand — road construction/resurfacing gravel — road construction/resurfacing	Hmn-5
		Eaton Sand & Gravel Co.	Whitewater	sand — unspecified gravel — unspecified	Hmn-46

Harrison Sand & Gravel Co.	Harrison Sand & Gravel Co.	Harrison	sand — building, portland cement concrete, asphaltic concrete, road construction/resurfacing, filtration, foundry, ice control gravel — building, portland cement concrete, filtration	Hmn-17
Bertha A. Leonard	Bertha A. Leonard	Crosby	sand — fill gravel — fill	Hmn-67
Rack Sand, Inc.	Rack Sand, Inc.	Mill Creek	sand — building gravel — building	Hmn-10
Southern Ohio Aggregates, Inc.	Southern Ohio Aggregates, Inc.	Colerain	sand — unspecified gravel — unspecified	Hmn-S
Southern Ohio Sand & Gravel, Inc.	Southern Ohio Sand & Gravel, Inc.	Whitewater	sand — unspecified gravel — unspecified	Hmn-SO
Watson Gravel, Inc.	Harrison Pit	Whitewater	sand — unspecified gravel — unspecified	Hmn-71
Welch Sand & Gravel, Inc.	East Miami Pit	Whitewater	sand — building, portland cement concrete, asphaltic concrete, fill gravel — building, portland cement concrete, road construction/resurfacing	Hmn-60
	Fernald Pit	Colerain	sand — building gravel — building	Hmn-48
Gerken Materials, Inc.	Gerken Materials, Inc.	Crosby	sand — building gravel — building	Hmn-42
Hocking Valley Concrete, Inc.	Hocking Valley Concrete, Inc.	Liberty	sand — asphaltic concrete gravel — asphaltic concrete	Hy-5
Kilbarger Construction, Inc.	Kilbarger Construction, Inc.	Green	sand — unspecified gravel — unspecified	Hg-262
Muskingum River Gravel Co.	Muskingum River Gravel Co.	Falls	gravel — road construction/resurfacing	Hg-329
Robert Tripp	Robert Tripp	Green, Starr	sand — unspecified gravel — unspecified	Hg-301
Jeff Chaney	Jeff Chaney	Falls	gravel — unspecified gravel — fill	Hg-328
Feikert Sand & Gravel, Inc.	Feikert Sand & Gravel, Inc.	Killbuck, Monroe	sand — fill gravel — fill	Hs-96 ⁵
Menuiez Bros. Sand & Gravel, Inc.	Fair Pit	Salt Creek	sand — unspecified gravel — unspecified	Hs-511
Spring Run Farm & Gravel	Spring Run Farm & Gravel	Hardy	sand — building, portland cement concrete gravel — building, portland cement concrete, road construction/resurfacing, filtration, unspecified	Hs-82
Erie Blacktop, Inc.	Erie Blacktop Sand & Gravel Pit	Killbuck, Monroe	sand — portland cement concrete, asphaltic concrete, ice control gravel — portland cement concrete, asphaltic concrete, road construction/resurfacing, fill	Hs-96 ⁵
Rogers Group, Inc. (dba Norwalk Sand & Gravel)	Norwalk Sand & Gravel	Norwalk	sand — unspecified gravel — unspecified	Hrn-16
Penn Eagle Coal Corp.	B & S Mine	Norwalk	sand — fill gravel — other	Hrn-1
Goodwin Sand & Gravel, Inc.	Goodwin Sand & Gravel, Inc.	Saline	sand — building, portland cement concrete, asphaltic concrete, filtration, fill gravel — building, portland cement concrete, asphaltic concrete, filling, scaping, fill	Jfn-PE
Mickley Gravel Co.	Mickley Gravel Co.	Clinton	sand — building gravel — building	Kx-7
Olen Corp.	Fredericktown Plant #2	Union	sand — building, asphaltic concrete, unspecified gravel — building, asphaltic concrete, fill, ice control, unspecified	Kx-5
S & S Aggregate, Inc.	Plant #13	Morris	sand — unspecified gravel — unspecified	Kx-16
Sant Sand & Gravel, Inc.	Sant Sand & Gravel, Inc.	Middlebury	sand — building, portland cement concrete, asphaltic concrete, road construction/resurfacing	Kx-13
		Clinton	gravel — building, portland cement concrete, asphaltic concrete, sand — unspecified gravel — building, road construction/resurfacing, other gravel — building, road construction/resurfacing, other	Kx-3

⁵See also Clark County.⁴Information for Hmn-11 includes information for Hmn-70.⁵This mine was operated 1st quarter by Spring Run Farm & Gravel, and 2nd through 4th quarters by Jeff Chaney.

1992 OHIO DIRECTORY OF SAND AND GRAVEL MINING OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY — Continued

County	Name of operator	Name of pit	Township	Type and principal use	State mine number
Knox (cont.)	Small's Sand & Gravel, Inc.	Small's Sand & Gravel, Inc.	Harrison	sand — unspecified gravel — unspecified	Kx-15
	R. W. Sidley, Inc.	Painesville Pit	Painesville	sand — portland cement concrete, other gravel — road construction/resurfacing	Lke-7
Lawrence	Becky Lane Trucking, Inc.	Becky Lane Sand	Perry	sand — fill	Le-430
	Burlington Sand & Gravel Co.	Burlington Sand & Gravel Co.	Perry	sand — fill	Le-426
Licking	D & D Sand Bank	D & D Sand Bank	Perry	sand — fill	Le-445
	American Aggregates Corp.	Newark #214	Newark	sand — road construction/resurfacing	Lg-2
	Dry Creek Gravel Co.	Plant #3	Newton	gravel — road construction/resurfacing sand — building, portland cement concrete, asphaltic concrete, road construction/resurfacing	Lg-DC
		Plant #2	Washington	gravel — building, portland cement concrete, asphaltic concrete, road construction/resurfacing sand — building, portland cement concrete, asphaltic concrete, road construction/resurfacing	Lg-31
Logan	Gary Roberts Excavating	Gary Roberts Excavating	Madison	gravel — building, portland cement concrete, asphaltic concrete, road construction/resurfacing sand — driveway base	Lg-504
	Van Wey Sand & Gravel, Inc.	Van Wey Sand & Gravel, Inc.	Newton	sand — building, road construction/resurfacing gravel — building, road construction/resurfacing	Lg-10
	York Road Gravel Co.	York Road Gravel Co.	Etna	sand — bank run gravel — bank run	Lg-38
	Cooper Sand & Gravel	Cooper Sand & Gravel	Lake	sand — building gravel — building	Lgn-40
Lorain	C. E. Duff & Son, Inc.	Portable	Jefferson	sand — filtration	Lgn-12
	Neer's Sand & Gravel	C. E. Duff & Son, Inc. Duff Sand Co.	Lake Washington	sand — road construction/resurfacing sand — building, portland cement concrete, filtration	Lgn-36
Lucas	Guy Schieve	Neer's Sand & Gravel	Union	sand — unspecified gravel — unspecified	Lgn-31
	Atlantic Investment Co.	Guy Schieve	Henrietta	sand — building	Ln-12
Madison	Craig Fankhauser	Atlantic Investment Co.	Spencer	sand — unspecified gravel — unspecified	Ls-AI
	Maumee Haulers & Excavating, Inc.	Craig Fankhauser	Swanton	sand — building	Ls-F
	Seaway Sand & Stone, Inc.	Eber Rd. Pit	Monclova	sand — building	Ls-26
	Tuftco Sand & Gravel, Inc.	Seaway Sand & Stone, Inc.	Springfield	sand — construction	Ls-SS
Mahoning	Solomon's Mines, Inc.	Tuftco Sand & Gravel, Inc.	Swanton	sand — construction	Ls-13
	Fleming Construction Co., Inc.	Solomon's Mines, Inc.	Darby	sand — fill gravel — building, fill, driveway use, parking lots	Mdn-11
Marion	Penry Stone Co.	Fleming Construction Co., Inc.	Green	sand — building, filtration gravel — building, road construction/resurfacing, filtration	Mg-632
	Scioto Sand & Gravel	Penry Stone Co.	Prospect	sand — unspecified gravel — unspecified	Mn-F
	Union Aggregates Co.	Scioto Sand & Gravel	Prospect	sand — portland cement concrete, asphaltic concrete, unspecified gravel — portland cement concrete, asphaltic concrete, unspecified	Mn-4
	Baker Sand, Inc.	Prospect Sand & Gravel Plant	Prospect	sand — horse bedding gravel — fill	Mn-16
Medina	Friendsville Sand, L.P.	Baker Sand, Inc.	Prospect	sand — building gravel — oversize	Mn-10
	Friendsville Sand, L.P.	Friendsville Sand, L.P.	Harrisville, Westfield	sand — building, asphaltic concrete, road construction/ resurfacing, fill gravel — road construction/resurfacing	Ma-20
			Westfield	sand — building	Ma-23

Meigs	Seville Sand & Gravel, Inc.	Seville Sand & Gravel, Inc.	Harrisville	sand — building, asphaltic concrete gravel — building, asphaltic concrete, road construction/ resurfacing	Ma-22
	Dravo Basic Materials Co., Inc. Humphrey Farms Meigs County Commissioners	Apple Grove Plant Vivian Humphrey Meigs County Pit	Letart Olive Letart	gravel — road construction gravel — bank run sand — unspecified gravel — unspecified	Ms-205 Ms-295 Ms-301
	Richards & Son, Inc.	Richards & Son, Inc.	Letart	sand — building, asphaltic concrete, road construction/resurfacing gravel — building, asphaltic concrete, road construction/ resurfacing, filtration	Ms-298
Miami	American Aggregates Corp.	Troy Gravel #433	Concord	sand — road construction/resurfacing gravel — road construction/resurfacing sand — ⁶	Mi-3
	Fenner Sand & Gravel, Inc.	Tipp City Gravel #435	Monroe	gravel — ⁶ sand — unspecified	Mi-8
	New Carlisle Sand & Gravel Co.	Woodville Concrete Corp.	Newton	gravel — unspecified	Mi-4
	Stillwater Sand & Gravel, Inc.	New Carlisle Sand & Gravel Co.	Bethel	sand — fill gravel — fill	Mi-501
Monroe	Tipp Stone Co., Inc.	Stillwater Sand & Gravel, Inc.	Union	sand — building gravel — building	Mi-504
	Wise Gravel	Troy	Elizabeth	sand — unspecified gravel — unspecified	Mi-12
	B & D Paving Co.	Wise Gravel	Newberry	sand — farm use, fill gravel — building, farm use, fill	Mi-9
		B & D Paving Co.	Salem	sand — bank run gravel — bank run	Me-508
Montgomery	American Aggregates Corp.	Rip Rap Road #416	Wayne	sand — road construction/resurfacing gravel — road construction/resurfacing	My-66
	Broadway Sand & Gravel, Inc.	Broadway Sand & Gravel, Inc.	Harrison	sand — building gravel — building	My-65
	Hilltop Basic Resources, Inc.	West Carrollton Aggregate Plant	Jefferson, Miami	sand — building, portland cement concrete, asphaltic concrete gravel — portland cement concrete, asphaltic concrete, fill, base	My-19
	Jimco, Inc. Miller Bros. Gravel, Inc.	Taylorville Rd. Hardfill Miller Bros. Gravel, Inc.	Wayne Butler	gravel — bank run sand — building, portland cement concrete, masonry resurfacing, filtration, other	My-55 My-52
Morgan	Northmont Sand & Gravel Co.	Northmont Sand & Gravel Co.	Randolph	gravel — building, portland cement concrete, road construction/ resurfacing, filtration, other	My-49
	Tipp Stone Co., Inc.	Meeker	Butler	sand — building gravel — building	My-61
	Weidle Sand & Gravel, Inc.	Weidle Sand & Gravel, Inc.	German	sand — unspecified gravel — unspecified	My-41
	Chesterhill Stone Co.	Chesterhill Stone Co.	Windsor	sand — building, portland cement concrete, asphaltic concrete, road construction/resurfacing, filtration gravel — building, portland cement concrete, asphaltic concrete, road construction/resurfacing, filtration	Mon-CS
Morrow	Chesterhill Stone Co.	Chesterhill Stone Co.	Chester	sand — building gravel — building, road construction/resurfacing, filtration, ice control, landscaping	Mw-10
Muskingum	Boyd Gravel Co.	Jennings-Lacy	Cass	sand — building, portland cement concrete, asphaltic concrete, fil- tration, mason sand	Mum-799
	Lazy Acre Farms, Inc.	Lazy Acre Farms, Inc.	Harrison	gravel — building, portland cement concrete, asphaltic concrete, road construction/resurfacing, filtration	Mum-261
	Luburgh, Inc.	Luburgh Sand Pit	Falls	sand — unspecified gravel — unspecified	Mum-267
	Muskingum River Gravel Co.	Muskingum River Gravel Co.	Wayne	sand — unspecified gravel — unspecified	Mum-228

1992 OHIO DIRECTORY OF SAND AND GRAVEL MINING OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY — Continued

County	Name of operator	Name of pit	Township	Type and principal use	State mine number
Muskingum (cont.)	Salt Creek Materials, Inc.	Salt Creek Materials, Inc.	Washington	sand — road construction/resurfacing, filtration gravel — road construction/resurfacing	Mum-216
	American Aggregates Corp.	Circleville #216	Circleville	sand — road construction/resurfacing	Pky-1
	Darby Gravel Co.	Darby Gravel Co. Darby Gravel Co.	Darby Darby	gravel — road construction/resurfacing gravel — bank run sand — fill	Pky-7 Pky-D
	William A. Hoffman, Jr.	Hoffman Pit	Wayne	gravel — screened sand — fill	Pky-H
Pike	R. E. Holland Excavating, Inc.	Ed Umsted Richards Farms, Inc.	Pickaway Circleville, Wayne	gravel — fill, bank run gravel — trench back fill sand — unspecified	Pky-HE Pky-R
	Eugene T. Wilson	Eugene T. Wilson	Darby	gravel — unspecified sand — other gravel — other	Pky-W
	Chattin Concrete	Chattin Concrete	Seal	sand — unspecified gravel — unspecified	Pke-23
	Standard LaFarge	Cutlip	Scioto	sand — building, portland cement concrete, asphaltic concrete, road construction/resurfacing gravel — building, portland cement concrete, asphaltic concrete, road construction/resurfacing	Pke-24
Portage	Valley Materials Co.	Valley Materials Co.	Scioto	sand — unspecified gravel — unspecified	Pke-26
	American Sand & Gravel	American Sand & Gravel	Suffield	sand — unspecified gravel — unspecified	Pe-ASG
	Aurora Sand & Gravel, Inc.	Aurora Sand & Gravel, Inc.	Aurora	sand — road construction/resurfacing gravel — road construction/resurfacing	Pe-84
	Beck Sand & Gravel, Inc.	Beck Sand & Gravel, Inc.	Shalersville	gravel — road construction/resurfacing sand — unspecified gravel — unspecified	Pe-50
Portage	Karl Brugmann Sand & Gravel, Inc.	Karl Brugmann Sand & Gravel, Inc.	Shalersville	sand — building gravel — building	Pe-15
	Oscar Brugmann Sand & Gravel, Inc.	Oscar Brugmann Sand & Gravel, Inc.	Shalersville	sand — unspecified gravel — unspecified	Pe-9
	Charlestown Sand & Gravel, Inc.	Charlestown Sand & Gravel, Inc.	Charlestown	sand — building, unspecified gravel — building, unspecified	Pe-17
	R. A. Cruise Sand & Gravel, Inc.	R. A. Cruise Sand & Gravel, Inc.	Franklin, Ravenna	sand — building gravel — building, asphaltic concrete	Pe-45
	Don's Dozer Service	Don's Dozer Service	Streetsboro	sand — unspecified gravel — unspecified	Pe-96
	Daniel Ebbe Trucking	Daniel Ebbe Trucking	Brimfield	sand — fill, bank run gravel — road construction/resurfacing, fill	Pe-E
	Green Oaks Potting Products, Inc.	Green Oaks Potting Products, Inc. Hilltop Aggregate, Inc.	Franklin Suffield	sand — bank run, ball mix sand — building, portland cement concrete, asphaltic concrete, base	Pe-89 Pe-56
	Hugo Sand Co.	Hugo Sand Co.	Franklin	gravel — building sand — building, road construction/resurfacing, other	Pe-10
	Jefferson Materials Co.	Howitt	Streetsboro	gravel — building, road construction/resurfacing, other sand — road construction/resurfacing	Pe-63
	Johnson Rd. Sand & Gravel, Inc.	Johnson Rd. Sand & Gravel, Inc.	Franklin	gravel — asphaltic concrete, road construction/resurfacing sand — building	Pe-J
	Karg Sand & Gravel Co.	Karg Sand & Gravel Co.	Brimfield	gravel — building sand — fill	Pe-83
	Lakeside Sand & Gravel Co.	Lakeside Sand & Gravel Co.	Shalersville	gravel — oversize sand — building, portland cement concrete	Pe-40
	Lucky Sand & Gravel Co.	Lucky Sand & Gravel Co.	Mantua	gravel — building sand — unspecified	Pe-L
	Miller Sand & Gravel Co.	Miller Sand & Gravel Co.	Windham	gravel — unspecified sand — building, fill, soil mix gravel — building, fill, soil mix	Pe-39

Preble	Northern Ohio Materials, Inc.	Northern Ohio Materials, Inc.	Streetsboro	sand — building, portland cement concrete gravel — building	Pe-85
	Rainbow Sand & Gravel, Inc.	Rainbow Sand & Gravel, Inc.	Shalersville	sand — unspecified gravel — unspecified	Pe-64
	Red Brush Peat Co. S & S Aggregate, Inc.	Red Brush Peat Co. Twin Lakes Sand, Inc.	Franklin Shalersville, Streetsboro	sand — fill, soil mix sand — unspecified gravel — unspecified	Pe-61 Pe-59
	Schloss Materials Co.	Twin Lakes Sand, Inc.	Streetsboro	sand — unspecified gravel — unspecified	Pe-67
	Sober Sand & Gravel Co.	Schloss Materials Co.	Mantua	sand — asphaltic concrete gravel — asphaltic concrete	Pe-60
	Solon Excavators Sand & Gravel, Inc.	Sober Sand & Gravel Co.	Rootstown	sand — building, road construction/resurfacing, fill gravel — building	Pe-18
	Standard Lafarge	Solon Excavators Sand & Gravel, Inc.	Mantua	sand — building gravel — building	Pe-SE
	Sunshine Sand Co.	Shalersville	Shalersville	sand — building, portland cement concrete, asphaltic concrete, road construction/resurfacing	Pe-68
	Don Wartko Construction, Inc.	Shalersville Portable Sunshine Sand Co.	Shalersville Streetsboro	gravel — building, portland cement concrete, asphaltic concrete, road construction/resurfacing	Pe-SS1 Pe-SSC
	Loxley Aggregates, Inc.	Don Wartko Construction, Inc.	Brimfield	gravel — building sand — unspecified gravel — unspecified	Pe-92
	Southern Ohio Aggregates, Inc.	Loxley Aggregates, Inc.	Twin	sand — building, filtration gravel — building, filtration	Pre-9
	Wysong Gravel Co.	Southern Ohio Aggregates, Inc.	Gratis, Lanier	sand — unspecified gravel — unspecified	Pre-7
		Camden Plant	Somers	gravel — unspecified sand — building, portland cement concrete, asphaltic concrete, road construction/resurfacing	Pre-4
		West Alexandria Plant	Twin	gravel — building, portland cement concrete, asphaltic concrete, road construction/resurfacing	Pre-6
Richland	Bolin & Bartley, Inc.	Bolin & Bartley Sand & Gravel	Weller	sand — building, asphaltic concrete, gravel — building	Rd-20
	D. H. Bowman & Sons, Inc.	D. H. Bowman & Sons, Inc.	Jefferson	sand — asphaltic concrete, fill, pipe bedding gravel — building, asphaltic concrete, road construction/ resurfacing, filtration, fill, pipe bedding	Rd-4
	Ganges Gravel	Ganges Gravel	Cass	sand — unspecified gravel — unspecified	Rd-18
	John L. Garber Materials, Inc.	John L. Garber Materials, Inc.	Troy	sand — building gravel — building	Rd-14
Ross	Carroll Lifer Excavating, Inc.	Honey Creek Sand & Gravel	Jefferson	sand — building, fill gravel — building, fill	Rd-L
	Chillicothe Sand & Gravel Co.	Chillicothe Sand & Gravel Co.	Springfield	sand — building, road construction/resurfacing gravel — building, road construction/resurfacing, fill, pit run	Rs-27
	David E. Edington	David E. Edington	Concord	sand — building gravel — building	Rs-E
	Elm Spring Farm	Elm Spring Farm	Union	sand — road construction/resurfacing gravel — road construction/resurfacing	Rs-26
Scioto	Haubeil & Sons Asphalt & Materials, Inc.	Haubeil & Sons Asphalt & Materials, Inc.	Springfield	sand — building, road construction/resurfacing gravel — road construction/resurfacing	Rs-H
	Muskingum River Gravel Co.	Muskingum River Gravel Co.	Jefferson	sand — unspecified gravel — unspecified	Rs-M
	Ross County Gravel Co.	Ross County Gravel Co.	Scioto	sand — building, asphaltic concrete gravel — building, asphaltic concrete, road construction/ resurfacing	Rs-R
	Scioto Valley Resources	Scioto Valley Resources Division	Valley	sand — portland cement concrete, masonry gravel — road construction/resurfacing	So-100

1992 OHIO DIRECTORY OF SAND AND GRAVEL MINING OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY — Continued

County	Name of operator	Name of pit	Township	Type and principal use	State mine number
Scioto (cont.)	Standard Lafarge	Haverhill	Green	sand — building, portland cement concrete, asphaltic concrete, road construction/resurfacing gravel — building, portland cement concrete, asphaltic concrete, road construction/resurfacing	So-79
Shelby	Fleckenstein Farm Gravel Pit	Fleckenstein Farm Gravel Pit	McLean	sand — fill gravel — fill	Shy-12
	Sidney Sand & Gravel Co.	Sidney Sand & Gravel Co.	Clinton, Salem	sand — unspecified gravel — unspecified	Shy-SS
		Wagner	Orange	sand — unspecified gravel — unspecified	Shy-S
		Milligan & Milligan-Washington Twp. Pit	Washington	sand — bank run gravel — bank run	Shy-13
	Spring Creek Corp.	Pence Deposit	Washington	sand — building, portland cement concrete, asphaltic concrete	Shy-11
		Jones Deposit	Washington	sand — building, portland cement concrete, asphaltic concrete	Shy-18
		"H" Mine	Washington	sand — portland cement concrete, asphaltic concrete gravel — portland cement concrete	Shy-SC
	American Sand & Gravel	American Sand & Gravel	Jackson	sand — unspecified gravel — unspecified	Sk-203
		American Sand & Gravel	Jackson	sand — unspecified gravel — unspecified	Sk-243
	Canton Aggregate (Div. of Central Allied Enterprises, Inc.)	Canton Aggregate	Jackson	sand — asphaltic concrete, other gravel — asphaltic concrete, other	Sk-689
Stark		Canton Aggregate	Plain	sand — portland cement concrete, asphaltic concrete, other gravel — portland cement concrete, asphaltic concrete, other	Sk-681
	A. J. Diana Sons, Inc.	Neidert Pit	Lawrence	sand — unspecified gravel — unspecified	Sk-694
	Heiser Sand & Gravel	Heiser Sand & Gravel	Jackson	sand — building gravel — building	Sk-688
	Massillon Materials, Inc.	Massillon Materials, Inc.	Jackson	sand — unspecified gravel — unspecified	Sk-MM
		Massillon Materials, Inc.	Perry	sand — asphaltic concrete, road construction/resurfacing gravel — asphaltic concrete, road construction/resurfacing	Sk-M
	Massillon Washed Gravel Co.	Massillon Washed Gravel Co.	Bethlehem	sand — portland cement concrete, road construction/resurfacing gravel — portland cement concrete, road construction/resurfacing	Sk-607
	Northern Ohio Paving Co.	Northern Ohio Paving Co.	Perry	sand — unspecified gravel — unspecified	Sk-N
	Oster Sand & Gravel, Inc.	Massillon Plant	Jackson, Perry	sand — building, portland cement concrete, asphaltic concrete, ice control, fill gravel — building, asphaltic concrete, road construction/resurfacing, ice control, fill	Sk-165
	Ralph C. Wagner & Sons	Ralph C. Wagner & Sons	Bethlehem	sand — unspecified gravel — unspecified	Sk-W
	Alden Sand & Gravel Co.	Alden Sand & Gravel Co.	Northampton	sand — unspecified gravel — unspecified	St-55
Summit	Flesher Sand & Gravel, Inc.	Flesher Sand & Gravel, Inc.	Norton	sand — unspecified gravel — unspecified	St-52
	Lerkis Asphalt Co., Inc. & Subsidiary	Lerkis Asphalt Co., Inc. & Subsidiary	Portage	sand — unspecified gravel — unspecified	St-L
	M. & G. Supply Co.	Chapel Hill Sand & Gravel	Tallmadge	sand — building gravel — building	St-56
	Portage Lakes Sand & Gravel Co.	Portage Lakes Sand & Gravel Co.	Coventry	sand — building gravel — building	St-53
	R & S, Inc.	Copley Sand & Gravel	Copley	sand — building gravel — building	St-54
	Riverside Sand & Gravel Co., Inc.	Riverside Sand & Gravel Co., Inc.	Stow, Tallmadge	sand — building, asphaltic concrete, road construction/resurfacing gravel — building	St-24

Trumbull	Rubber City Sand & Gravel Co.	Rubber City Sand & Gravel Co.	Green	sand — building, portland cement concrete, filtration, fill gravel — building, portland cement concrete, road construction/ resurfacing, filtration, fill	St-9
	S & S Aggregate, Inc.	Twin Lakes Sand, Inc.	Coventry	sand — unspecified gravel — unspecified	St-44
	Sam Serves	Sam Serves	Coventry	sand — unspecified gravel — unspecified	St-S
	Nick's Trucking Samco, Inc.	Nick's Trucking Springbrook	Mesopotamia Mesopotamia	sand — fill sand — building, portland cement concrete, asphaltic concrete, road construction/resurfacing, fill gravel — building, road construction/resurfacing sand — fill	TL-N TL-12
Tuscarawas	David A. Shay	David A. Shay	Warren	sand — other	TL-S
	Benco Leasing, Inc.	Goshen Sand & Gravel	Goshen	gravel — oversize	Ts-1976
	Burgett Industries, Inc. Al Gasser Excavating, Inc.	Burgett Industries, Inc. Al Gasser Excavating, Inc.	Oxford Goshen	sand — fill sand — building, fill gravel — building, fill	Ts-2029 Ts-G
	Larkin Sewer Contractors, Inc.	Larkin Sewer Contractors, Inc.	Goshen	sand — building, road construction/resurfacing, filtration, fill, bank run	Ts-L
Warren	Newton Asphalt	516	Dover	gravel — building, road construction/resurfacing, filtration sand — building, asphaltic concrete, other	Ts-2001
	Oster Sand & Gravel, Inc.	Bolivar Plant	Lawrence	sand — building, asphaltic concrete, ice control, fill gravel — building, asphaltic concrete, road construction/ resurfacing, filtration, ice control, fill	Ts-1852
	Soehnen Bros. Sand & Gravel, Inc.	Soehnen Bros. Sand & Gravel, Inc.	Wayne	sand — building, road construction/resurfacing, landfill use	Ts-1826
	Spring Industries, Inc.	Midvale Pit	Goshen	sand — building, portland cement concrete, asphaltic concrete, ice control	Ts-1771
	Stewart & Reichman, Inc.	Stewart & Reichman, Inc.	Warwick	gravel — building, portland cement concrete, asphaltic concrete, ice control	Ts-111
	Stocker Sand & Gravel Co.	Stocker Sand & Gravel Co.	Clay	sand — road construction/resurfacing, unspecified gravel — road construction/resurfacing, unspecified	Ts-69
	Zink Petroleum Corp. (dba State Rte. 416 Sand & Gravel)	Stocker Sand & Gravel Co.	Clay	sand — building, road construction/resurfacing gravel — building, road construction/resurfacing	Ts-125
	American Aggregates Corp.	State Rte. 416 Sand & Gravel	Goshen	sand — building, road construction/resurfacing gravel — building, portland cement concrete, fill resurfacing, filtration	Ts-2018
	Embro, Inc.	Franklin #714	Franklin	sand — road construction/resurfacing gravel — road construction/resurfacing	Wan-38
	Paul N. Herdman	Embro, Inc.	Franklin	sand — unspecified gravel — unspecified	Wan-7
Washington	L & I Natural Resources, Inc.	Paul N. Herdman	Salem	sand — unspecified gravel — unspecified	Wan-46
	Morrow Gravel Co.	L & I Pit & Mill	Union	sand — building gravel — building	Wan-50
	Carl E. Oeder & Sons Sand & Gravel	Morrow Gravel Co.	Hamilton	sand — unspecified gravel — unspecified	Wan-M
	Watson Gravel, Inc.	Morrow Gravel Co.	Salem	sand — unspecified gravel — unspecified	Wan-M2
	Atlas Towing Co.	Carl E. Oeder & Sons Sand & Gravel	Union	gravel — unspecified gravel — unspecified	Wan-41
	Briggs Sand & Gravel, Inc.	Mason Pit	Union	gravel — building	Wan-10
	Copolite Sand & Gravel Corp.	Belpre Bank Run	Belpre	sand — unspecified gravel — unspecified	Wn-54
	M & J Sand & Gravel, Inc.	Briggs Sand & Gravel, Inc.	Warren	sand — building gravel — road construction/resurfacing	Wn-508
	Muskingum River Gravel Co.	Devoia Plant #2	Muskingum	sand — road construction/resurfacing gravel — road construction/resurfacing	Wn-44
		M & J Sand & Gravel, Inc. Plant #2	Newport Grandview	gravel — road construction/resurfacing sand — other gravel — unspecified	Wn-M Wn-38

1992 OHIO DIRECTORY OF SAND AND GRAVEL MINING OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY — Continued

County	Name of operator	Name of pit	Township	Type and principal use	State mine number
Washington (cont.)	Trout Sand & Gravel Co.	Trout Sand & Gravel Co.	Warren	sand — building gravel — building	Wn-510
	Washington County Engineer	Washington County Pit	Muskingum	sand — road construction/resurfacing gravel — road construction/resurfacing	Wn-Wn
	Mark Williams Blacktop Co., Inc.	Williams Pit #1	Warren	sand — building, asphaltic concrete gravel — building	Wn-1007
Wayne	Buckeye Excavating Prairie Lane Sand & Gravel Co.	Steiner Pit Prairie Lane Sand & Gravel Co.	Canaan Franklin	gravel — building sand — building, road construction/resurfacing	We-23 We-11
	Rupp Construction, Inc.	Rupp Construction, Inc.	Baughman	sand — building, portland cement concrete, asphaltic concrete, road construction/resurfacing	We-7
	Zollinger Sand & Gravel Co.	Zollinger Sand & Gravel Co.	Chippewa	gravel — portland cement concrete, asphaltic concrete, road construction/resurfacing	We-15
Williams	Stoneco, Inc.	South Montpelier	Superior	sand — unspecified gravel — unspecified	Ws-6
	Weber Sand & Gravel, Inc.	Weber Sand & Gravel, Inc.	St. Joseph	sand — portland cement concrete, asphaltic concrete, filtration, foundry gravel — portland cement concrete, asphaltic concrete, filtration	Ws-11
Wood	G. M. Sader Excavating & Paving, Inc.	G. M. Sader Excavating & Paving, Inc.	Plain	sand — building, fill	Wd-13
Wyandot	Kirby's Sand & Gravel, Inc.	Kirby's Sand & Gravel, Inc.	Eden	sand — building, asphaltic concrete, filtration gravel — building, filtration	Wt-17
	National Lime & Stone Co.	Upper Sandusky Plant	Eden	sand — building, portland cement concrete, asphaltic concrete gravel — portland cement concrete	Wt-15 ⁷
	Precision Aggregate, Inc.	Precision Aggregate, Inc.	Crane, Eden	sand — portland cement concrete gravel — portland cement concrete	Wt-4

⁷Information for Wt-15 includes information for Wt-5 and Wt-18.

**1992 SANDSTONE/CONGLOMERATE COMPANIES WITH
SALES OR PRODUCTION**

Company	No. of operations	Sales (tons)	Production (tons)
Beaver Creek Resources, Inc.	1	32,023	32,023
Belden Brick Co.	1	107,400	107,400
Best Sand Corp.	1	604,685	645,169
Boyas Excavating, Inc.	1	1,100	1,100
Briar Hill Stone Co.	5	14,963	14,963
Central Silica Co.	2	459,984	459,984
Cleveland Quarries Co.	2	4,354	4,354
Conotton Valley Quarries Co.	1	14,175	14,175
Green Basin Coal, Inc.	1	3,605	3,605
Gwin Contracting Co.	1	7,961	7,961
Keeney Sand & Stone, Inc.	1	40,602	40,602
Kimble Clay & Limestone Co.	1	610	610
L & M Mineral Co.	1	1,638	2,983
Mesenburg Bros., Inc.	1	51,213	51,213
Newbury Sand & Gravel	1	390	390
Penn Eagle Coal Corp.	1	3,867	3,867
Rash Energy, Inc.	1	30,561	30,561
Riverside Sand & Gravel Co., Inc.	1	22,921	22,921
Schrader Sand & Gravel	1	28,255	40,390
R. W. Sidley, Inc.	2	172,310	271,610
Sidwell Bros., Inc.	1	16,614	16,614
Slankard Dozer Service, Inc.	1	104	104
Southern Silica, Inc.	1	205,187	205,187
U.S. Silica Co.	1	16,785	16,785
Waller Bros. Stone Co.	2	8,661	8,661
Frank Widmor Coal Co.	1	5,045	5,045
TOTAL: 26 companies	34	1,855,013	2,008,277



Sandstone quarry and crew of McDermott Stone Company, Scioto County.
Date of photo is uncertain, probably early 1900's.

1992 OHIO DIRECTORY OF SANDSTONE/CONGLOMERATE MINE OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY

For those mines for which the Division of Mines has not assigned a state mine number, a letter designation is used (example: Gea-N).

County	Name of operator	Name of quarry	Township	Geological unit	Type and principal use	State mine number
Belmont	Frank Widmor Coal Co.	Frank Widmor Coal Co.	Pultney		crushed or broken stone — foundry sand, riprap	Bt-1190
Carroll	Conotton Valley Quarries Co.	Conotton Valley Quarries Co.	Lee		dimension stone — rough construction	Cl-102
Columbiana	Beaver Creek Resources, Inc.	Beaver Creek Resources, Inc.	Salem		crushed or broken stone — aggregate, base	Ca-855
Coshocton	Briar Hill Stone Co.	Quarry #26 Quarry #32 Quarry #54 Quarry #55 Quarry #3	Monroe Monroe Monroe Monroe Tiverton	Massillon (Pennsylvanian) Massillon (Pennsylvanian) Massillon (Pennsylvanian) Massillon (Pennsylvanian) Massillon (Pennsylvanian)	dimension stone — rough construction dimension stone — rough construction dimension stone — rough construction dimension stone — rough construction dimension stone — rough construction	Cn-13 Cn-686 Cn-809 Cn-815 Cn-659
Cuyahoga	Boyas Excavating, Inc.	Boyas Valley View Quarry	Independence	Bedford (Mississippian)	crushed or broken stone — riprap, construction	Cya-42
Erie	Cleveland Quarries Co.	Birmingham Quarry	Florence	Berea (Mississippian)	dimension stone — rough architectural	Ee-21
Geauga	Best Sand Corp.	Best Sand Corp.	Munson	Sharon conglomerate (Pennsylvanian)	crushed or broken stone — foundry sand, glass sand, metallurgical pebble, refractory, aggregate, fire and furnace sand, polishing/grinding sand, engine sand, frac sand, construction, filtration, filler, extender, landscape use	Gea-3
	Newbury Sand & Gravel R. W. Sidley, Inc.	Newbury Sand & Gravel Thompson Pit	Burton Hamden Thompson	Sharon conglomerate (Pennsylvanian)	crushed or broken stone — riprap, construction crushed or broken stone — unspecified crushed or broken stone — metallurgical pebble, aggregate, engine sand, polishing/grinding sand, filtration, sandblasting, trap sand, mortar/grout mixes	Gea-N Gea-S Gea-1
Huron	Mesenburg Bros., Inc.	Mesenburg Bros., Inc.	Townsend	Berea (Mississippian)	crushed or broken stone — riprap	Hrn-8
Jefferson	Penn Eagle Coal Corp.	B & S Mine	Saline		crushed or broken stone — riprap	Jfh-PE
Knox	Central Silica Co.	Millwood Sand Division	Union	Black Hand (Mississippian)	crushed or broken stone — foundry sand, glass sand, silica flour, engine sand, frac sand, construction, other	Kx-1
Lake	Keeney Sand & Stone, Inc.	Keeney Sand & Stone, Inc.	Leroy		crushed or broken stone — unspecified	Lke-K
Lorain	Cleveland Quarries Co.	Amherst Quarries	Amherst	Berea (Mississippian)	crushed or broken stone — riprap dimension stone — refractory, rubble, grindstones, rough architectural, finished, flagging	Ln-3
Mahoning	Gwin Contracting Co.	Gwin Contracting Co.	Milton	Sharon sandstone (Pennsylvanian)	crushed or broken stone — fractured laminated sand rock	Mg-62
Perry	Central Silica Co.	Glass Rock	Hopewell	Massillon (Pennsylvanian)	crushed or broken stone — foundry sand, glass sand, silica flour, other	Py-344
Pike	Schrader Sand & Gravel	Schrader Sand & Gravel	Jackson	Sharon conglomerate (Pennsylvanian)	crushed or broken stone — foundry sand, metallurgical pebble, construction, fire and furnace sand	Pke-31
Ross	Southern Silica, Inc.	Southern Silica, Inc.	Jefferson	Sharon conglomerate (Pennsylvanian)	crushed or broken stone — foundry sand, glass sand, refractory, engine sand, fill, filtration, industrial sand	Rs-16
Scioto	Waller Bros. Stone Co.	Inskeep Quarry Crabtree Quarry	Rush Morgan, Rush, Union	Buena Vista (Mississippian)	dimension stone — rough construction dimension stone — rough construction	So-48 So-76
Summit	Riverside Sand & Gravel Co., Inc.	Riverside Sand & Gravel Co., Inc.	Stow, Tallmadge		crushed or broken stone — aggregate	St-24
Trumbull	Sidwill Bros., Inc.	Hard Rocks	Kinsman		crushed or broken stone — aggregate	Tl-13
Tuscarawas	Belden Brick Co. Green Basin Coal, Inc. Kimble Clay & Limestone Co. L & M Mineral Co. Slankard Dozer Service, Inc. U.S. Silica Co.	Moomaw Pit Green Basin Coal, Inc. Kimble Clay & Limestone Co. Spring Mill Slankard Dozer Service, Inc. Coxey Works	Sugar Creek Lawrence Dover Mill, Warwick Franklin Wayne	Massillon (Pennsylvanian)	crushed or broken stone — aggregate crushed or broken stone — unspecified crushed or broken stone — other crushed or broken stone — construction crushed or broken stone — riprap crushed or broken stone — construction crushed or broken stone — fire and furnace sand	Ts-1517 Ts-2024 Ts-1818 Ts-1982 Ts-2032 Ts-1660
Wayne	Rash Energy, Inc.	Rash Energy, Inc.	Paint		crushed or broken stone — unspecified	We-R

1992 CLAY COMPANIES WITH SALES OR PRODUCTION

Company	No. of operations	Sales (tons)	Production (tons)
American Landfill, Inc.	1	285,232	285,232
Athens Hocking Reclamation Center	1	403	403
Belden Brick Co.	5	250,290	250,290
Belville Mining Co., Inc.	1	4,082	4,082
Blue Jay Enterprises of Tuscarawas Co., Inc.	1	36,138	36,138
Bowerston Shale Co.	1	14,148	14,148
Buckeye-Industrial Mining Co.	3	29,002	29,002
Cedar Heights Clay Co.	2	50,582	50,582
Central Silica Co.	1	58,868	58,868
Clark Clay Co.	1	2,485	2,400
Claycraft Co.	1	14,982	14,982
D. & D. Mining Co.	1	12,421	12,421
Dennis Clay Co.	2	22,593	26,882
R. A. Eberts Co., Inc.	1	947	947
Envirosafe Services of Ohio, Inc.	1	196,705	196,705
General Clay Products Corp.	2	49,122	49,122
Green Basin Coal, Inc.	1	22,895	22,895
Holmes Limestone Co.	3	58,229	55,009
Kimble Clay & Limestone Co.	1	270,178	270,178
L & M Mineral Co.	1	21,325	21,325
Lafarge Corp.	1	300,781	300,781
Mead Corp.	1	219,000	219,000
Mitchell Transport, Inc.	1	2,618	2,618
Nutter Bros. Coal Co., Inc.	1	44,199	44,199
Rash Energy, Inc.	1	48,000	48,000
Red Brush Peat Co.	1	2,303	2,303
S. K. Construction Co.	1	93,267	93,267
Sandkuhl Tile Co., Inc.	1	2,537	2,537
Solomon's Mines, Inc.	1	2,997	2,997
Soltis Sand & Gravel	1	415	415
Speer Brothers, Inc.	1	55,800	55,800
Stone Creek Brick Co.	1	44,617	44,617
Swingle Drilling, Inc.	2	2,460	2,460
TRANS-ASH	1	46,300	46,300
Valley Clay Mining Co.	1	7,354	8,932
Valley Materials Co.	1	1,952	1,952
Waste Management of Ohio, Inc.	1	224,000	224,000
Waterloo Coal Co., Inc.	1	7,530	7,530
Zoar Mining Co.	1	2,391	13,849
TOTAL: 39 companies	51	2,509,148	2,523,168

1992 OHIO DIRECTORY OF CLAY-MINE OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY

For those mines for which the Division of Mines has not assigned a state mine number, a letter designation is used (example: Br-SK).

County	Name of operator	Name of mine or quarry	Township	Geological unit	Principal use	State mine number
Athens	Athens Hocking Reclamation Center	Athens Hocking Reclamation Center	York		oil and gas well plugging material	As-594
Auglaize	R. A. Eberts Co., Inc.	Diamond Stone	Lee		unspecified	As-533
Butler	Sandkuhl Tile Co., Inc.	Sandkuhl Tile Co., Inc.	Salem	Pleistocene glacial clay	common clay products	Ae-7
Carroll	S. K. Construction Co.	Ron Chrisman Farm	Madison		unspecified	Br-SK
Columbiana	Buckeye-Industrial Mining Co.	Buckeye-Industrial Mining Co.	Rose	No. 5 clay (Pennsylvanian)	refractories	Cl-B
Coshocton	D. & D. Mining Co.	D. & D. Strip	Unity		common clay products	Ca-348
	General Clay Products Corp.	Drescher Pit	Crawford	No. 5 clay (Pennsylvanian)	common clay products	Cn-787
	TRANS-ASH	TRANS-ASH	Franklin		construction	Cn-T
Erie	Speer Brothers, Inc.	101 Location	Margaretta		unspecified	Ee-32
Geauga	Soltis Sand & Gravel	Soltis Sand & Gravel	Parkman		unspecified	Gea-9
Hocking	General Clay Products Corp.	General Clay Products Corp.	Falls Gore	No. 5 fire clay (Pennsylvanian)	vitrefied products	Hg-205
Holmes	Clark Clay Co.	Clark Clay Co.	Hardy	Putnam Hill (Pennsylvanian)	common clay products	Hs-56
	Holmes Limestone Co.	241 Plant	Hardy	Brookville & Putnam Hill (Pennsylvanian)	common clay products	Hs-67
Jackson	Cedar Heights Clay Co. (Div. of Resco Products, Inc.)	Cedarloo/Jenkins/Greer	Madison	No. 5 clay (Pennsylvanian)	common clay products	Jkn-1007
	Waterloo Coal Co., Inc.	Katie Walke	Jefferson		common clay products	Jkn-CH
Lake	Mitchell Transport, Inc.	Waterloo-Zoar	Painesville	No. 5 & No. 6 clays (Pennsylvanian)	refractories	Jkn-367
Lawrence	Belville Mining Co., Inc.	North Park Ash Reclamation Center	Washington		landfill use	Lke-M
Lucas	Envirosafe Services of Ohio, Inc.	Belville Mining Co., Inc.	Oregon		common clay products	Le-B
Mahoning	Solomon's Mines, Inc.	Envirosafe Services of Ohio, Inc.	Green		landfill use	Le-E
Muskingum	Bowerton Shale Co.	Frazeysburg	Jackson	Flint Ridge & Middle Mercer (Pennsylvanian)	construction	Mg-632
	Dennis Clay Co.	Ohio Power	Newton		vitrefied products	Mum-776
	Valley Clay Mining Co.	Kimpel Mine	Crane		common clay products	Mum-903
	Lafarge Corp.	Paulding Quarry	Hopewell	Detroit River & upper Dundee (Devonian)	common clay products	Mum-904
Paulding	Central Silica Co.	Glass Rock	Monday Creek		cement manufacture	Pg-1
Perry	Nutter Bros. Coal Co., Inc.	Dennis Clay Co.	Monday Creek		construction	Py-344
	Swingle Drilling, Inc.	Myron Taylor	Harrison		common clay products	Py-338
	Valley Materials Co.	T. G. Industries, Inc.	Harrison		common clay products	Py-N
Pike	Red Brush Peat Co.	Valley Materials Co.	Scioto		common clay products	Py-S
Portage	Mead Corp.	Red Brush Peat Co.	Franklin		common clay products	Py-S1
Ross	American Landfill, Inc.	Depot Landfill Closure Pit	Liberty		unspecified	Pke-26
Stark	Buckeye-Industrial Mining Co.	American Landfill, Inc.	Sandy	No. 5 & No. 6 clays (Pennsylvanian)	soil mix, fill	Pe-61
	Holmes Limestone Co.	Cable Job	Osnaburg	No. 5 clay (Pennsylvanian)	landfill use	Rs-M1
	Waste Management of Ohio, Inc.	Bolivar Mine	Osnaburg, Sandy		landfill use	Sk-246
Tuscarawas	Belden Brick Co.	Countywide RDF	Bethlehem	Brookville (Pennsylvanian)	common clay products	Sk-247
		Wallick Pit	Franklin, Wayne	No. 5 & No. 6 clays (Pennsylvanian)	common clay products	Sk-245
		Moomaw Pit	Sugar Creek	Brookville (Pennsylvanian)	landfill use	Sk-235
		Belden Pit	Sugar Creek	Brookville & Lower Kittanning (Pennsylvanian)	landfill use	Sk-217
		Shanesville Pit	Sugar Creek	Brookville (Pennsylvanian)	common clay products	Ts-1841
		Beagle Pit	Sugar Creek	Brookville (Pennsylvanian)	common clay products	Ts-1517
		Swonger-Waltz Mine	Sandy	Brookville (Pennsylvanian)	common clay products	Ts-1646
	Blue Jay Enterprises of Tuscarawas Co., Inc.	Green Basin Coal, Inc.	Lawrence		common clay products	Ts-1939
	Kimble Clay & Limestone Co.	Kimble Clay & Limestone Co.	Dover	Vanport (Pennsylvanian)	common clay products	Ts-1960
		Spring	Mill, Warwick		refractories	Ts-520
		Stone Creek Clay Mine	Jefferson		refractories, construction	Ts-2024
		Zoar Mining Co.	Sandy		common clay products, construction	Ts-1818
		Wayne Mines	Franklin		common clay products	Ts-1982
Wayne	Holmes Limestone Co.	Rash Energy, Inc.	Paint	No. 6 clay (Pennsylvanian)	vitrefied products	Ts-1557
		Claycraft Plant #1 Clay Pit	Crane	alluvial clay	common clay products	Ts-540
Wyandot					unspecified	Hs-791
					common clay products	We-R
					common clay products	Wt-7

¹All sales and production are from Wayne County.

1992 SHALE COMPANIES WITH SALES OR PRODUCTION

Company	No. of operations	Sales (tons)	Production (tons)
Belden Brick Co.	3	230,337	230,337
Blue Jay Enterprises of Tuscarawas Co., Inc.	1	12,289	12,289
Bowerston Shale Co.	2	43,986	43,986
Buckeye-Industrial Mining Co.	1	5,085	5,085
Dennis Clay Co.	2	25,610	35,343
Dome Minerals, Inc.	1	5,903	5,903
E.M.A.I. Corp., dba ESSROC Materials, Inc.	2	98,356	98,356
General Clay Products Corp.	4	89,625	89,625
Glen-Gery Corp.	1	162,246	162,246
Green Basin Coal, Inc.	1	120,400	120,400
Holmes Limestone Co.	1	31,085	31,085
Hydraulic Press Brick Co.	1	197,710	198,250
Kimble Clay & Limestone Co.	1	332,401	332,401
Board of Knox County Commissioners	1	4,352	4,352
L & M Mineral Co.	1	38,573	38,573
London Tile Co.	1	1,244	1,244
Midwest Portland Cement Corp.	1	23,314	23,314
Rash Energy, Inc.	1	73,561	73,561
Richland Moulded Brick Co.	1	6,260	6,260
Stone Creek Brick Co.	1	2,508	2,508
Summitville Tiles, Inc.	1	36,205	36,205
Towne Square Products	1	1,650	1,650
Waste Management of Ohio, Inc.	1	231,181	231,181
Frank Widmor Coal Co.	1	303,260	303,260
Zoar Mining Co.	1	576	576
TOTAL: 25 companies	33	2,077,717	2,087,990



Trimble shale pit and workers, Athens County, circa 1910.

1992 OHIO DIRECTORY OF SHALE-MINE OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY

For those mines for which the Division of Mines has not assigned a state mine number, a letter designation is used (example: Kx-K).

County	Name of operator	Name of mine	Township	Geological unit	Principal use	State mine number
Ashland	London Tile Co.	Biglow	Ruggles	Bedford (Mississippian)	common clay products construction	Ald-1
Belmont	Frank Widmor Coal Co.	Frank Widmor Coal Co.	Pulney			Bt-1190
Columbiana	Dome Minerals, Inc.	Dome Minerals, Inc.	Franklin		common clay products, vitrified products common clay products	Ca-947
	Summitville Tiles, Inc.	Summitville Tiles, Inc.	Franklin		common clay products	Ca-989
Coshocton	General Clay Products Corp.	Drescher Pit	Crawford	Lower Kittanning (Pennsylvanian)	common clay products	Cn-787
Cuyahoga	Hydraulic Press Brick Co.	Hydraulic Press Brick Co.	City of Independence	Chagrin (Devonian)	lightweight aggregate	Cya-19
Harrison	Bowerston Shale Co.	Bowerston	Monroe	Conemaugh (Pennsylvanian)	vitrified products	Hn-152
Hocking	General Clay Products Corp.	General Clay Products Corp.	Falls Gore Start	No. 5 fire clay (Pennsylvanian)	vitrified products common clay products	Hg-205 Hg-330
Holmes	Holmes Limestone Co.	241 Plant	Hardy	Brookville & Vanport (Pennsylvanian)	common clay products	Hs-67
Knox	Board of Knox County Commissioners	Board of Knox County Commissioners	Brown		unspecified	Kx-K
Licking	Bowerston Shale Co.	Hanover	Hanover	Logan (Mississippian)	vitrified products	Lg-501
Mahoning	E.M.A.I. Corp., dba ESSROC Materials, Inc.	Bessemer Pit	Poland	Vanport (Pennsylvanian)	cement manufacture	Mg-608
		Carbon Pit	Poland, Springfield		cement manufacture	Mg-EM
Marion	Glen-Gery Corp.	Glen-Gery Corp.	Tully	Bedford (Mississippian)	common clay products	Mn-7
Medina	General Clay Products Corp.	General Clay Products Corp.	Wadsworth		common clay products	Ma-6
Muskingum	Dennis Clay Co.	Ohio Power Lyle Quarry	Newton		common clay products	Mum-903
	Midwest Portland Cement Corp.	Towne Square Products	Newton		cement manufacture	Mum-24
Noble	Towne Square Products	Dennis Clay Co.	Buffalo		common clay products	Ne-66
Perry	Richland Moulded Brick Co.	Richland Moulded Brick Co.	Monday Creek		common clay products	Py-338
Richland	Buckeye-Industrial Mining Co.	Cable Job	Franklin, Weller	Bedford (Mississippian)	common clay products	Rd-R
Stark	Waste Management of Ohio, Inc.	Countywide RDF	Osnaburg		common clay products landfill use	Sk-247 Sk-217
	Belden Brick Co.	Belden Pit	Bethlehem, Pike	Kittanning (Pennsylvanian)		
Tuscarawas	Blue Jay Enterprises of Tuscarawas Co., Inc.	Shanesville Pit	Sugar Creek	Brookville & Tionesta (Pennsylvanian)	common clay products	Ts-1517
	Green Basin Coal, Inc.	Swonger-Waltz Mine	Sugar Creek	Brookville & Tionesta (Pennsylvanian)	common clay products	Ts-1646
	Kimble Clay & Limestone Co.	Green Basin Coal, Inc.	Sandy	Brookville (Pennsylvanian)	common clay products	Ts-1939
	L & M Mineral Co.	Shanesville Pit			common clay products	Ts-520
	Stone Creek Shale Co.	Stone Creek Shale Pit	Lawrence		unspecified	Ts-2024
	Zoar Mining Co.	Zoar Mining Co.	Dover	Vanport (Pennsylvanian)	construction	Ts-1818
Wayne	Rash Energy, Inc.	Rash Energy, Inc.	Mill, Rush, Warwick Jefferson		common clay products	Ts-1884
			Sandy		vitrified products	Ts-1558
			Paint		common clay products	Ts-540
					unspecified	We-R

**1992 OHIO DIRECTORY OF SALT-MINE AND SALT-BRINING-PLANT OPERATORS
REPORTING SALES OR PRODUCTION, BY COUNTY**

County	Name of operator	Name of mine	Township	Geological unit and product	State mine number
Cuyahoga	Akzo Salt, Inc.	Cleveland Mine	City of Cleveland	Salina (Silurian) — rock salt	Cya-30
Lake	Morton International, Inc. Morton Salt Div.	Fairport Mine	Painesville	Salina (Silurian) — rock salt	Lke-6
Licking	R. H. Penick Co.	R. H. Penick Co.	Newark	"Newburg" (Silurian) — natural brine	Lg-45
Summit	Akzo Salt, Inc.	Akzo Salt, Inc.	Coventry	Salina (Silurian) — artificial brine	St-9127
Wayne	Morton International, Inc., Morton Salt Div.	Morton Salt Well Field	Milton	Salina (Silurian) — artificial brine	We-9129

1992 OHIO DIRECTORY OF GYPSUM-MINE OPERATORS REPORTING SALES OR PRODUCTION

County	Name of operator	Name of mine	Township	Geological unit	State mine number
Ottawa	Celotex Corp.	American #2	Portage	Silurian	Oa-2

1992 OHIO DIRECTORY OF PEAT-MINE OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY

County	Name of operator	Name of mine	Township	Type and principal use	State mine number
Champaign	Sphagnum Moss Peat Farm	Sphagnum Moss Peat Farm	Harrison	mulch, humus — worm culture	Cpn-9
Portage	Green Oaks Potting Products, Inc. Red Brush Peat Co.	Green Oaks Potting Products, Inc. Red Brush Peat Co.	Franklin Franklin	mulch, soil mix mulch, soil mix	Pe-89 Pe-61
Williams	Lingvai Peat Co.	Lingvai Peat Co.	Center	mulch	Ws-17

**NUMERICAL INDEX OF OPERATORS OF MINES
SHOWN ON 1992 MINERAL INDUSTRIES MAP OF OHIO, BY COMMODITY**

COAL ● ○

<i>Map location number</i>	<i>County</i>	<i>State mine number</i>	<i>Division of Reclamation permit number</i>	<i>Name of operator</i>
3	Belmont	Bt-68	D-0360	Ohio Valley Coal Co.
13	Belmont	Bt-147	D-0022	Marietta Coal Co.
16	Belmont	Bt-643	D-0328	Saginaw Mining Co.
19	Belmont	Bt-927	D-0483	Fairpoint Coal Co.
27	Belmont	Bt-1074	D-0340	Ohio River Collieries, Inc.
38	Belmont	Bt-1104	D-0088	Marietta Coal Co.
39	Belmont	Bt-1105	D-0333, D-0734	Marietta Coal Co.
42	Belmont	Bt-1109	D-0270, D-0780	Marietta Coal Co.
61	Carroll	Cl-162	D-0408	James Bros. Coal Co.
123	Coshocton	Cn-779	D-0320	R & F Coal Co.
124	Coshocton	Cn-768	D-0208	R & F Coal Co.
144	Harrison	Hn-738	D-0376	W. B. Coal Co., Inc.
146	Harrison	Hn-217	D-0440	Varkony Mining Co.
150	Harrison	Hn-700	D-0826 et al.	Consolidation Coal Co.
161	Holmes	Hs-67	IM-3, IM-768	Holmes Limestone Co.
162	Holmes, Wayne	Hs-79	IM-656, D-0283, D-0429	Holmes Limestone Co.
164	Holmes	Hs-86	D-0193, D-0508, D-0913, D-942	Holmes Limestone Co.
165	Jackson	Jkn-367	IM-744, D-0273 et al.	Waterloo Coal Co., Inc.
178	Jefferson	Jfn-528	D-0247, D-0563, D-0665	Boich Mining Co.
180	Jefferson	Jfn-687	D-0404, D-0939	Weirton Construction Co.
181	Jefferson	Jfn-703	D-0112, D-0194, D-0736, D-0843	Zimnox Coal Co.
185	Jefferson	Jfn-780	D-0126	D & L Contractors, Inc.
186	Jefferson	Jfn-784	D-0091, D-0728	F & M. Coal Co.
189	Jefferson	Jfn-788	D-0327, D-0983	Anthony Mining Co., Inc.
190	Jefferson	Jfn-789	D-0307	Anthony Mining Co., Inc.
205	Mahoning	Mg-65	D-0374	Thompson Bros. Mining Co.
212	Meigs	Ms-293	D-0354, D-0463	Southern Ohio Coal Co.
213	Meigs	Ms-294	D-0355	Southern Ohio Coal Co.
215	Monroe	Me-4	D-0433, D-0422	Quarto Mining Co. (Subsidiary of Consolidation Coal Co.)
228	Muskingum, Noble	Ne-41	D-0839 et al.	Central Ohio Coal Co.
239	Perry	Py-317	D-0057 et al.	Crooksville Coal Co., Inc.
246	Stark	Sk-208	D-0295, D-0827, D-1005	ENZ, Inc.
248	Stark	Sk-217	D-0938, IM-750	Waste Management of Ohio, Inc.
256	Tuscarawas	Ts-115	D-0190 et al.	Costain Coal, Inc.
258	Tuscarawas	Ts-540	IM-28	Zoar Mining Co.
261	Tuscarawas	Ts-1646	IM-44	Belden Brick Co.
262	Tuscarawas	Ts-1727	IM-9	Kimble Clay & Limestone Co.
267	Tuscarawas	Ts-1914	D-0701	L & M Mineral Co.
300	Vinton	Ms-293	D-0354, D-0463	Southern Ohio Coal Co.
314	Guernsey	Gy-304	D-0262	R & F Coal Co.
326	Harrison	Hn-222	D-0587	Huberta Coal Co.
330	Hocking	Hg-321	D-0531	Valley Coal Corp.
357	Vinton	Vn-172	D-0445	Benedict, Inc.
360	Carroll	Cl-233	D-0628	Regal Mining, Inc.
363	Stark	Sk-235	IM-945, D-0865	Holmes Limestone Co.
375	Tuscarawas	Ts-1996	D-0612	J D Mining, Inc.
392	Columbiana	Ca-855	IM-891	Beaver Creek Resources, Inc.
398	Coshocton	Cn-820	D-0623	R & F Coal Co.
399	Harrison, Jefferson	Hn-255	D-0593	R & F Coal Co.
411	Tuscarawas	Ts-1982	IM-621	L & M Mineral Co.
418	Vinton	Vn-182	D-0631	R. A. Eberts Co., Inc.
419	Vinton	Vn-183	D-0633	Benedict, Inc.
420	Vinton	Vn-184	D-0524, D-0609	Benedict, Inc.
423	Vinton	Vn-187	D-0672	Benedict, Inc.
433	Tuscarawas	Ts-1991	D-0702	Daron Coal Co., Inc.
441	Columbiana	Ca-348	IM-976, D-1002	D. & D. Mining Co.
442	Coshocton	Cn-HI	D-0673	R & F Coal Co.
447	Carroll	Cl-238	D-0703	Buckeye-Industrial Mining Co.
452	Belmont	Bt-1164	D-0742	Marietta Coal Co.
456	Belmont	Bt-1168	D-0619	R & F Coal Co.
468	Carroll	Cl-H	D-0791	Horizon Coal Corp.
471	Columbiana	Ca-950	D-0768	Blum Coal Co.
472	Columbiana	Ca-951	D-0741	Commercial Minerals, Inc.

NUMERICAL INDEX OF OPERATORS OF MINES
SHOWN ON 1992 MINERAL INDUSTRIES MAP OF OHIO, BY COMMODITY — Continued

COAL — Continued

<i>Map location number</i>	<i>County</i>	<i>State mine number</i>	<i>Division of Reclamation permit number</i>	<i>Name of operator</i>
475	Columbiana	Ca-968	D-0760	East Fairfield Coal Co.
483	Hocking	Hg-324	D-0754	Hocking Valley Mining
489	Jefferson	Jfn-813	D-0740	Valley Mining, Inc.
491	Lawrence	Le-432	IM-1188, D-0733, D-0746, D-0915	Addington, Inc.
493	Noble	Ne-1008	D-0706	B & N Coal, Inc.
495	Noble	Ne-150	D-0787	B & N Coal, Inc.
497	Perry	Py-340	D-0783, D-0916	Buckingham Mining & Reclamation, Inc.
506	Tuscarawas	Ts-2002	D-0779	Miller Mining, Inc.
508	Tuscarawas	Ts-DW	D-0792	R & F Coal Co.
509	Tuscarawas	Ts-K3	D-0729	Kimble Clay & Limestone Co.
510	Tuscarawas	Ts-2007	D-0737	Red Malcuit, Inc.
511	Vinton	Vn-188	D-0761	Addington, Inc.
513	Vinton	Vn-S	D-0793	Sands Hill Coal Co., Inc.
514	Noble, Washington	Ne-151	D-0807	B & N Coal, Inc.
519	Belmont	Bt-1179	D-0840	K.C.C.I.
523	Belmont	Bt-1183	D-0845	Marietta Coal Co.
524	Belmont	Bt-1184	D-0799	Joyce Coal Co., Inc.
526	Carroll	Cl-244	D-0814	Regal Mining, Inc.
528	Columbiana	Ca-985	D-0821	Double "R" Mining
529	Columbiana	Ca-978	D-0874	Buckeye-Industrial Mining Co.
532	Coshocton	Cn-PA	D-0850	R & F Coal Co.
534	Guernsey	Gy-310	D-0842	Costain Coal, Inc.
537	Harrison	Hn-MN	D-0772	R & F Coal Co.
538	Holmes	Hs-97	D-0775, D-0885	Holmes Limestone Co.
539	Jackson	Jkn-1064	D-0732 et al.	Stewart Coal Co.
541	Jackson	Jkn-SH	D-0861, IM-1068	Sands Hill Coal Co., Inc.
544	Jefferson	Jfn-817	D-0860	R & F Coal Co.
545	Jefferson	Jfn-P2	D-0798	R & F Coal Co.
550	Noble	Ne-147	D-0453	R & F Coal Co.
551	Noble	Ne-152	D-0859	King Quarries, Inc.
555	Tuscarawas	Ts-2005	D-0769	Valley Mining, Inc.
556	Tuscarawas	Ts-2006	D-0800	Red Malcuit, Inc.
559	Tuscarawas	Ts-2010	D-0849	Miller Mining, Inc.
560	Tuscarawas	Ts-2011	D-0822	Valley Mining, Inc.
562	Tuscarawas	Ts-JD	D-0858	J D Mining, Inc.
564	Vinton	Vn-192	D-0207	R. A. Eberts Co., Inc.
565	Coshocton	Cn-832	D-0589, D-0688, D-0856	Holmes Limestone Co.
567	Belmont	Bt-1186	D-0877	Schiappa Coal Co., Inc.
568	Belmont	Bt-1188	D-0908	R & F Coal Co.
569	Belmont	Bt-1189	D-0914	Bannock Coal Co.
570	Belmont	Bt-771	D-0771	Marietta Coal Co.
572	Belmont	Bt-1185	D-0862, D-0955	R & F Coal Co.
573	Carroll	Cl-248	D-0902	Regal Mining, Inc.
574	Columbiana	Ca-977	D-0851	Buckeye-Industrial Mining Co.
575	Coshocton	Cn-831	D-0788, D-0853, D-0870	Oxford Mining Co.
577	Coshocton	Cn-RF	D-0689	R & F Coal Co.
578	Coshocton	Cn-RR	D-0872	R & R Minerals, Inc.
580	Harrison	Hn-710	D-0426	Harrison Mining Corp.
582	Harrison	Hn-750	D-0901	Valley Mining, Inc.
584	Jackson	Jkn-1065	D-0887	Elk Coal Co.
586	Jefferson	Jfn-820	D-0894	D & L Contractors, Inc.
587	Muskingum	Mum-900	D-0281, D-0882	Sands Mining Corp.
588	Muskingum	Mum-901	D-0898	Oxford Mining Co.
589	Noble	Ne-153	D-0819	Puskarich Management, Inc.
590	Perry	Py-388	IM-1092	Dennis Clay Co.
595	Tuscarawas	Ts-2014	D-0868	Valley Mining, Inc.
597	Tuscarawas	Ts-2017	D-0660	Holmes Limestone Co.
598	Tuscarawas	Ts-2019	D-0852	Kimble Clay & Limestone Co.
600	Tuscarawas	Ts-2022	D-0878	Kimble Clay & Limestone Co.
601	Tuscarawas	Ts-2023	D-0796	Holmes Limestone Co.
602	Vinton	Vn-191	D-0197, D-0867, D-0957, D-1004	Addington, Inc.
603	Belmont	Bt-1190	IM-1089	Frank Widmor Coal Co.
604	Belmont	Bt-AT	D-0922	Marietta Coal Co.

NUMERICAL INDEX OF OPERATORS OF MINES
SHOWN ON 1992 MINERAL INDUSTRIES MAP OF OHIO, BY COMMODITY – Continued

COAL – Continued

<i>Map location number</i>	<i>County</i>	<i>State mine number</i>	<i>Division of Reclamation permit number</i>	<i>Name of operator</i>
605	Belmont	Bt-C	D-0961	Cravat Coal Co.
606	Carroll	Cl-247	D-0817	Buckeye-Industrial Mining Co.
607	Carroll	Cl-249	D-0933	Myers Mining
608	Columbiana	Ca-850, Ca-509	D-0052	Buckeye-Industrial Mining Co.
609	Columbiana	Ca-892	D-0419, D-0599, D-0896	C & E Coal, Inc.
612	Columbiana	Ca-981	D-0941	Commercial Minerals, Inc.
614	Columbiana	Ca-984	D-0952	East Fairfield Coal Co.
615	Coshocton	Cn-C	D-0911	Cravat Coal Co.
616	Coshocton	Cn-0X	D-0964	Oxford Mining Co.
617	Guernsey	Gy-311	D-0857, D-0989	Krulock, Inc.
618	Guernsey	Gy-313	D-0907	R. T. G., Inc.
619	Harrison	Hn-228	D-0934	Cravat Coal Co.
622	Harrison	Hn-751	D-0956	Mesa Coal Corp.
623	Jackson	Jkn-1069	D-0944	Sands Hill Coal Co., Inc.
626	Noble	Ne-154	D-0900	B & N Coal, Inc.
627	Noble	Ne-155	D-0958	B & N Coal, Inc.
628	Noble	Ne-156	D-0932	B & N Coal, Inc.
629	Perry	Py-B	D-0940	Buckingham Mining & Reclamation, Inc.
630	Stark	Sk-245	D-0653	Buckeye-Industrial Mining Co.
631	Stark	Sk-246	IM-1114	American Landfill, Inc.
632	Stark	Sk-247	D-0929	Buckeye-Industrial Mining Co.
633	Stark	Sk-WM	IM-1122	Valley Mining, Inc.
634	Tuscarawas	Ts-1939	IM-47	Belden Brick Co.
635	Tuscarawas	Ts-2027	D-0948	Miller Mining, Inc.
636	Tuscarawas	Ts-2028	D-0935	James Bros. Coal Co.
637	Tuscarawas	Ts-GC	D-0967	Miller Mining, Inc.
638	Tuscarawas	Ts-K4	D-0921	Kimble Clay & Limestone Co.
640	Tuscarawas	Ts-RM	D-0904	Red Malcuit, Inc.
641	Tuscarawas	Ts-V	D-0912	Valley Mining, Inc.
642	Tuscarawas	Ts-WS	D-0953	Miller Mining, Inc.
643	Carroll	Cl-222	D-0920	Buckeye-Industrial Mining Co.
644	Carroll	Cl-HM	D-0992	Myers Mining
645	Carroll	Cl-W	D-0979	Regal Mining, Inc.
646	Columbiana	Ca-986	D-0975	C & E Coal, Inc.
647	Columbiana	Ca-987	D-0928	Buckeye-Industrial Mining Co.
648	Guernsey	Gy-315	D-0951	Northshore Coal, Inc.
649	Guernsey	Gy-C	D-0910	C L A Coal Co.
650	Harrison	Hn-753	D-0991	R & F Coal Co.
651	Jackson	Jkn-1066	D-0808	Sands Hill Coal Co., Inc.
652	Jackson	Jkn-1070	D-0997	Stewart Coal Co.
653	Jackson	Jkn-1071	D-1003	Sands Hill Coal Co., Inc.
654	Jefferson	Jfn-1286	D-0816, D-0818	Buckeye-Industrial Mining Co.
655	Jefferson	Jfn-815	D-0135	W. B. Coal Co., Inc.
656	Jefferson	Jfn-821	D-0937	Joyce Coal Co., Inc.
657	Jefferson	Jfn-823	D-0949	Sterling Mining Co.
658	Jefferson	Jfn-824	D-0564, D-0995	R & F Coal Co.
659	Jefferson	Jfn-PE	IM-1162	Penn Eagle Coal Corp.
660	Mahoning	Mg-632	IM-808	Solomon's Mines, Inc.
661	Muskingum	Mum-903	IM-1115	Dennis Clay Co.
663	Perry	Py-A	D-0475, D-0931	Avis Coal Co.
664	Perry	Py-BM	D-0936, D-0977	Buckingham Mining & Reclamation, Inc.
665	Perry	Py-BMR	D-0980	Buckingham Mining & Reclamation, Inc.
666	Stark	Sk-249	D-0960	Buckingham Mining & Reclamation, Inc.
667	Tuscarawas	Ts-1517	IM-46	Belden Brick Co.
668	Tuscarawas	Ts-2024	IM-1087	Green Basin Coal, Inc.
669	Tuscarawas	Ts-2034	D-0516	Valley Mining, Inc.
670	Tuscarawas	Ts-CR	D-1001	Holmes Limestone Co.
671	Tuscarawas	Ts-DC	D-0954	Daron Coal Co., Inc.
672	Tuscarawas	Ts-EW	D-0987	Miller Mining, Inc.
673	Tuscarawas	Ts-H	D-0965	Horizon Coal Corp.
674	Tuscarawas	Ts-HLC	D-0969	Holmes Limestone Co.
675	Vinton	Vn-194	D-0973	Elk Coal, Inc.
676	Wayne	We-R	IM-690	Rash Energy, Inc.

**NUMERICAL INDEX OF OPERATORS OF MINES
SHOWN ON 1992 MINERAL INDUSTRIES MAP OF OHIO, BY COMMODITY — Continued**

COAL — Continued

<i>Map location number</i>	<i>County</i>	<i>State mine number</i>	<i>Division of Reclamation permit number</i>	<i>Name of operator</i>
677	Columbiana	Ca-980	D-0925	John Glenn Mining Co.
678	Hocking	Hg-331	D-0795, D-0946	Addington, Inc.
679	Holmes	Hs-BR	D-0970	Butler Resources
680	Tuscarawas	Ts-HC	D-0981	Horizon Coal Corp.

COAL-PREPARATION PLANTS ●

<i>Map location number</i>	<i>County</i>	<i>State mine number</i>	<i>Division of Reclamation permit number</i>	<i>Name of operator</i>
1	Belmont	Bt-108		R & F Coal Co.
3	Belmont	Bt-936	D-0216	Marietta Coal Co.
4	Belmont	Bt-68	D-0360	Ohio Valley Coal Co.
5	Columbiana	Ca-879	D-0806	Buckeye-Industrial Mining Co.
6	Columbiana	Ca-892	D-0599	C & E Coal, Inc.
7	Coshocton	Cn-810		Conesville Coal Preparation Co.
8	Harrison	Hn-212	D-0192	Consolidation Coal Co.
9	Jackson	Jkn-1055	D-0347	Sands Hill Coal Co., Inc.
10	Jackson	Jkn-367	D-0285	Waterloo Coal Co., Inc.
12	Jefferson	Jfn-647	D-0492	Ohio Coal & Construction Corp.
13	Mahoning	Mg-623	D-0214	East Fairfield Coal Co.
14	Meigs	Ms-293	D-0354	Southern Ohio Coal Co.
15	Monroe	Me-4	D-0422	Quarto Mining Co. (subsidiary of Consolidation Coal Co.)
16	Morgan	Ne-41	D-0420	Central Ohio Coal Co.
18	Perry	Py-317	D-0248	Crooksville Coal Co., Inc.
19	Tuscarawas	Ts-115	D-0199	Empire Coal Co.
20	Tuscarawas	Ts-1938	D-0264	Central Fuel Co.
21	Tuscarawas	Ts-1942	D-0287	Horizon Coal Corp.
22	Vinton	Vn-145	D-0159	Benedict, Inc.
23	Vinton	Vn-178	D-0185	Addington, Inc.
24	Vinton	Vn-641	D-0169	Sands Hill Coal Co., Inc.
27	Wayne	Ws-79	D-0283	Holmes Limestone Co.
28	Muskingum	Mum-239	D-0428	Sands Mining Corp.
29	Columbiana	Ca-932	D-0532	Buckeye-Industrial Mining Co.
30	Harrison	Hn-169	D-0424	Harrison Processing Corp.
31	Gallia	Ga-220	D-0201	Barrick Gold Exploration, Inc.
32	Tuscarawas	Ts-HC	D-0981	Horizon Coal Corp.

LIMESTONE/DOLOMITE ■

<i>Map location number</i>	<i>County</i>	<i>State mine number</i>	<i>Division of Reclamation permit number</i>	<i>Name of operator</i>
1	Adams	Ads-1	IM-237	Davon, Inc.
2	Adams	Ads-6	IM-659	Standard Lafarge
3	Allen	An-1	IM-485	Bluffton Stone Co.
5	Allen	An-3	IM-484	National Lime & Stone Co.
6	Allen	An-11	IM-541	National Lime & Stone Co.
7	Allen	An-4	IM-491	Suever Stone Co., Inc.
9	Athens	As-533	IM-17	R. A. Eberts Co., Inc.
10	Auglaize	Ae-31	IM-744	Con-Ag, Inc.
11	Auglaize	Ae-10	IM-486	National Lime & Stone Co.
12	Belmont	Bt-716	IM-1	Ayers Limestone Quarry, Inc.
15	Carroll	Cl-183	IM-7	Puskarich Limestone, Inc.
16	Clark	Ck-1	IM-373	American Aggregates Corp.
17	Clinton	Cl-1	IM-241	Melvin Stone Co.
18	Crawford	Cd-1	IM-404	National Lime & Stone Co.
19	Darke	Dke-1	IM-362	American Aggregates Corp.
20	Delaware	Del-4	IM-262	American Aggregates Corp.
21	Delaware	Del-5	IM-207	National Lime & Stone Co.

NUMERICAL INDEX OF OPERATORS OF MINES
SHOWN ON 1992 MINERAL INDUSTRIES MAP OF OHIO, BY COMMODITY — Continued

LIMESTONE/DOLOMITE — Continued

<i>Map location number</i>	<i>County</i>	<i>State mine number</i>	<i>Division of Reclamation permit number</i>	<i>Name of operator</i>
22	Delaware	Del-3	IM-327	American Aggregates Corp.
23	Delaware	Del-2	IM-299	Penry Stone Co.
24	Erie	Ee-27	IM-608	Erie Blacktop, Inc.
25	Erie	Ee-11	IM-263	Rogers Group, Inc. (dba Sandusky Crushed Stone Co.)
26	Erie	Ee-1	IM-310	Wagner Quarries Co.
27	Fayette	Fe-2	IM-169	American Aggregates Corp.
28	Fayette	Fe-1	IM-831	Melvin Stone Co.
29	Fayette	Fe-3	IM-329	American Aggregates Corp.
30	Franklin	Fn-2	IM-261	American Aggregates Corp.
31	Franklin	Fn-53	IM-185	American Aggregates Corp.
32	Greene	Ge-17	IM-435	American Aggregates Corp.
33	Clark, Greene	Ge-1	IM-393	Southwestern Portland Cement Co.
34	Greene	Ge-9	IM-364	Southwestern Portland Cement Co.
38	Hardin	Hdn-2	IM-443	Hardin Quarry Co., Inc.
41	Highland	Hd-2	IM-230	Davon, Inc.
42	Highland	Hd-3	IM-253	Ohio Asphaltic Limestone Corp.
43	Highland	Hd-4	IM-406	Marshall Quarry, Inc.
44	Holmes	Hs-67	IM-768	Holmes Limestone Co.
45	Holmes, Wayne	Hs-79	IM-656	Holmes Limestone Co.
47	Jackson	Jkn-367	IM-774	Waterloo Coal Co., Inc.
49	Logan	Lgn-1	IM-574	American Aggregates Corp.
50	Logan	Lgn-15	IM-453	C. E. Duff & Son, Inc.
51	Logan	Lgn-2	IM-494	Northwood Stone & Asphalt Co.
52	Lucas	Ls-1	IM-575	The France Stone Co.
53	Lucas	Ls-3	IM-580	The France Stone Co.
54	Lucas	Ls-2	IM-503	Stoneco, Inc.
56	Mahoning	Mg-54	IM-93	Honey Creek Stone Co.
57	Mahoning	Mg-608	IM-4	E.M.A.I. Corp.
59	Marion	Mn-2	IM-423	J. M. Hamilton & Sons Co., Inc.
60	Marion	Mn-3	IM-168	National Lime & Stone Co.
61	Marion	Mn-1	IM-250	Tri-County Limestone Co.
62	Mercer	Mr-1	IM-592	Stoneco, Inc.
63	Mercer	Mr-2	IM-430	S & S Aggregate, Inc.
64	Miami	Mi-1	IM-382	Piqua Materials, Inc.
65	Miami	Mi-16	IM-414	Gregory Stone Co., Inc.
66	Miami	Mi-502	IM-414	Barrett Paving Materials, Inc.
67	Miami	Mi-10	IM-335	C. F. Poeppelman, Inc.
70	Montgomery	My-1	IM-374	American Aggregates Corp.
71	Montgomery	My-23	IM-368	American Aggregates Corp.
72	Montgomery	My-58	IM-330	Southwestern Portland Cement Co.
73	Morgan	Mon-600	IM-281	Central Ohio Coal Co.
75	Muskingum	Mum-106	IM-297	Chesterhill Stone Co.
76	Muskingum	Mum-24	IM-830	Midwest Portland Cement Corp.
78	Muskingum	Mum-104	IM-277	Sidwell Bros., Inc.
80	Monroe, Noble	Ne-86	IM-70	Zerger's Quarry
82	Ottawa	Oa-6	IM-296	Edward Kraemer & Sons, Inc., White Rock Quarry, L.P., Division of U.S. Aggregates, Inc.
83	Ottawa	Oa-14	IM-320	Stoneco, Inc.
84	Ottawa	Oa-7	IM-440	Standard Lafarge
85	Ottawa	Oa-1	IM-292	GenLime Group, L.P.
86	Paulding	Pg-7		The France Stone Co.
87	Paulding	Pg-1	IM-513	Lafarge Corp.
88	Paulding	Pg-2	IM-481	Stoneco, Inc.
89	Perry	Py-235	IM-11, IM-515	Maxville Quarries, Inc.
91	Pike	Pke-13	IM-213	Latham Limestone, Inc.
92	Pickaway	Pky-4	IM-209	Melvin Stone Co.
95	Preble	Pre-5	IM-447	Wysong Stone Co.
98	Putnam	Pm-2	IM-570	Putnam Stone Co.
101	Sandusky	Sy-5	IM-259	Gotttron Bros. Co.
102	Sandusky	Sy-1	IM-537	Martin Marietta Magnesia Specialties, Inc.
103	Sandusky	Sy-4	IM-381	Steetley Quarry Products U.S., Inc., Ohio Lime Co.
104	Sandusky	Sy-3	IM-282	Steetley Quarry Products U.S., Inc., Ohio Lime Co.
106	Seneca	Sa-2	IM-352	Maple Grove Stone Co.

**NUMERICAL INDEX OF OPERATORS OF MINES
SHOWN ON 1992 MINERAL INDUSTRIES MAP OF OHIO, BY COMMODITY — Continued**

LIMESTONE/DOLOMITE — Continued

<i>Map location number</i>	<i>County</i>	<i>State mine number</i>	<i>Division of Reclamation permit number</i>	<i>Name of operator</i>
107	Seneca	Sa-1	IM-347	The France Stone Co.
108	Seneca	Sa-3	IM-349	The France Stone Co.
109	Seneca	Sa-8	IM-313	North Shore Stone Quarries, Inc.
110	Shelby	Shy-6	IM-389	Miami River Stone Co.
111	Shelby	Shy-16	IM-411	Sidney Sand & Gravel Co.
112	Shelby	Shy-15	IM-387	Spring Creek Corp.
117	Tuscarawas	Ts-1818	IM-9	Kimble Clay & Limestone Co.
118	Tuscarawas	Ts-1928	IM-98	Sugarcreek Clay & Limestone, Inc.
119	Union	Un-1	IM-208	Northwood Stone & Asphalt Co.
120	Union	Un-2	IM-236	Union Aggregates Co.
121	Van Wert	Vt-3	IM-495	Stoneco, Inc.
122	Van Wert	Vt-7	IM-642	Ridge Township Quarry
123	Van Wert	Vt-1	IM-500	Suever Stone Co., Inc.
124	Vinton	Vn-174	D-0309	G & M Supply, Inc. (dba Clinton Stone, Inc.)
129	Wood	Wd-5	IM-473	The France Stone Co.
130	Wood	Wd-1	IM-548	MacRitchie Materials, Inc.
131	Wood	Wd-6	IM-480	Stoneco, Inc.
132	Wood	Wd-11	IM-475	Stoneco, Inc.
133	Wyandot	Wt-3	IM-298	McCarthy Stone Quarry
134	Wyandot	Wt-1	IM-405	National Lime & Stone Co.
135	Wyandot	Wt-8	IM-273	Wyandot Dolomite, Inc.
142	Greene	Ge-25	IM-437	American Aggregates Corp.
143	Montgomery	My-32	IM-1012	American Aggregates Corp.
144	Muskingum	Mum-269	IM-1009	Salt Creek Materials, Inc.
145	Erie	Ee-31	IM-1044	Wagner Quarries Co.
146	Coshocton	Cn-830	IM-1049	Sidwell Bros., Inc.
147	Guernsey, Muskingum	Gy-309	IM-1030	King Limestone, Inc.
148	Vinton	Vn-190	D-0761	Quality Stone Co.
149	Hancock	Hk-7	IM-1002	National Lime & Stone Co.
151	Belmont	Bt-1192	IM-1093	Lakeland Construction, Black Gold Recovery, Inc.
152	Belmont	Bt-1190	IM-1089	Frank Widmor Coal Co.
153	Coshocton	Cn-A	IM-1011	All Stone Co.
154	Franklin	Fm-43	IM-188	Olen Corp.
155	Greene	Ge-45	IM-364	American Aggregates Corp.
156	Hardin	Hdn-S	IM-1034	Standard Lafarge
158	Jackson	Jkn-SH	IM-1068	Sands Hill Coal Co., Inc.
159	Lawrence	Le-A, Le-B	IM-1188, D-0746	Addington, Inc. Belville Mining Co., Inc.
160	Lucas	Ls-12	IM-953	E.M.A.I. Corp.
161	Mahoning	Mg-629	IM-1008	Petersburg Stone Co.
162	Mahoning	Mg-EM	IM-1056	E.M.A.I. Corp.
163	Monroe	Me-C	IM-1088	Christman Quarry
164	Monroe	Me-509	IM-1094	Rubel Quarry, Inc.
165	Morgan	Mon-C	IM-1010	Central Ohio Coal Co.
166	Muskingum	Ne-C	D-0820	Central Ohio Coal Co.
167	Noble	Ne-S	IM-913	Sharon Stone Co.
168	Perry	Py-343	IM-1061	Maxville Quarries, Inc.
169	Tuscarawas	Ts-2024	IM-1087	Green Basin Coal, Inc.
170	Tuscarawas	Ts-1982	IM-621	L & M Mineral Co.
171	Mahoning	Mg-E	IM-1103	East Fairfield Coal Co.
173	Adams	Ads-H	IM-805	Holloway Sand & Gravel Co., Inc.
174	Erie	Ee-K	IM-727	Kellstone, Inc.
175	Highland	Hd-D	IM-1170	Dravo Basic Materials Co., Inc.
176	Jefferson, Harrison	Jfn-K	IM-1164	K.C.C.I.
177	Miami	Mi-BPM	IM-1169	Barrett Paving Materials, Inc.
178	Montgomery	My-Q	IM-860	Quarry Trails
179	Noble	Ne-B	IM-897	B & N Coal, Inc.
180	Ottawa	Oa-18	IM-635	Fox Stone Products, Inc.
181	Tuscarawas	Ts-B	IM-49	Belden Brick Co.
182	Vinton	Vn-193		Quality Stone Co.
183	Wood	Wd-P	IM-1157	Precision Aggregate, Inc.

**NUMERICAL INDEX OF OPERATORS OF MINES
SHOWN ON 1992 MINERAL INDUSTRIES MAP OF OHIO, BY COMMODITY — Continued**

SAND AND GRAVEL DREDGING OPERATION △

<i>Map location number</i>	<i>County</i>	<i>State mine number</i>	<i>Division of Reclamation permit number</i>	<i>Name of operator</i>
1		Ee-D		Erie Sand & Gravel Co.
2		Lke-D		Osborne Materials Co.

SAND AND GRAVEL ▲

<i>Map location number</i>	<i>County</i>	<i>State mine number</i>	<i>Division of Reclamation permit number</i>	<i>Name of operator</i>
2	Allen	An-15	IM-721	Ward Materials, Inc.
6	Ashland	Ald-9	IM-0745	Ries Sand & Gravel
8	Ashland	Ald-7	IM-392	Young's Sand & Gravel Co.
9	Ashtabula	Asa-10	IM-198	Frye Sand & Gravel, Inc.
10	Ashtabula	Asa-14	IM-563	Janson's Soil Service, Inc.
11	Ashtabula	Asa-17	IM-886	Kinsman Sand & Gravel Co.
14	Ashtabula	Asa-12	IM-1130	Nelson Sand & Gravel, Inc.
15	Ashtabula	Asa-15	IM-783	R. W. Sidley, Inc.
19	Athens	As-588	IM-630	Black Top Contracting, Inc.
21	Athens	As-1161	IM-97	Lake Hope Asphalt, Inc.
23	Auglaize	Ae-23	IM-508	Joseph Sand & Gravel, Inc.
24	Auglaize	Ae-30	IM-598	National Lime & Stone Co.
25	Auglaize	Ae-16	IM-595	Quality Ready Mix, Inc.
26	Belmont	Bt-74	IM-288	Tri-State Asphalt Productions
28	Butler	Br-36	IM-649	V.I.P. Contractors, Inc.
29	Butler	Br-5	IM-153	American Aggregates Corp.
30	Butler	Br-35	IM-200	American Aggregates Corp.
31	Butler	Br-48	IM-562	Broshear Contractors, Inc.
32	Butler	Br-50	IM-739	Dingledine Basic Materials, Inc.
33	Butler	Br-14	IM-147	Dravo Basic Materials Co., Inc.
34	Butler	Br-29	IM-149	Dravo Basic Materials Co., Inc.
37	Butler	Br-40	IM-493	Indian Creek Sand & Gravel Co.
38	Butler	Br-52	IM-814	Shamrock Materials, Inc.
39	Butler	Br-15	IM-316	Mecco, Inc.
41	Butler	Br-6	IM-177	Weidle Sand & Gravel, Inc.
42	Butler	Br-3	IM-719	The Gravel Co.
44	Butler	Br-47	IM-111	Watson Gravel, Inc.
45	Butler	Br-38	IM-218	Welch Sand & Gravel, Inc.
47	Carroll	Cl-204	IM-554	Oneida Sand & Gravel, Inc.
48	Champaign	Cpn-1	IM-371	American Aggregates Corp.
49	Champaign	Cpn-21	IM-616	D & W Sand & Gravel
50	Champaign	Cpn-22	IM-889	Mechanicsburg Sand & Gravel, Inc.
51	Champaign	Cpn-20	IM-482	Moore's Excavating Co.
52	Clark	Ck-13	IM-366	American Aggregates Corp.
54	Clark	Ck-502	IM-375	Demmy Sand & Gravel
57	Clark	Ck-3	IM-463	Hilltop Basic Resources, Inc. (dba Enon Washed Sand & Gravel Co.)
58	Clark	Ck-25	IM-358	Springfield Sand & Gravel Co.
59	Clermont	Ct-9	IM-526	Barrett Paving Materials, Inc.
61	Clermont	Ct-7	IM-432	Kipp's Gravel Co., Inc.
64	Columbiana	Ca-855	IM-891	Beaver Creek Resources, Inc.
68	Columbiana	Ca-881	IM-611	X L Sand & Gravel
69	Coshocton	Cn-718	IM-227	Apache Aggregate & Paving Co.
70	Coshocton	Cn-783	IM-717	Apache Aggregate & Paving Co.
71	Coshocton	Cn-694	IM-293	Boyd Gravel Co.
72	Coshocton	Cn-624	IM-243	Sugarcreek Clay & Limestone, Inc.
75	Crawford	Cd-3	IM-693	Gibson Sand & Gravel Co.
80	Darke	Dke-4	IM-433	Foureman's Sand & Gravel, Inc.
81	Darke	Dke-10	IM-326	Tom Hollinger Excavating
82	Defiance	De-2	IM-765	Hillsdale Sand & Gravel, Inc.
83	Erie	Ee-18	IM-676	Elmer Borchardt, Inc.
84	Erie	Ee-29		Jarrett Sand Co.

**NUMERICAL INDEX OF OPERATORS OF MINES
SHOWN ON 1992 MINERAL INDUSTRIES MAP OF OHIO, BY COMMODITY — Continued**

SAND AND GRAVEL — Continued

<i>Map location number</i>	<i>County</i>	<i>State mine number</i>	<i>Division of Reclamation permit number</i>	<i>Name of operator</i>
85	Erie	Ee-5		Keener Sand & Clay Co.
86	Erie	Ee-24	IM-915	Mesenburg Bros., Inc.
87	Erie	Ee-28	IM-601	Miller Sand Co.
92	Fairfield	Fd-13	IM-848	Lancaster Sand & Gravel Co.
94	Franklin	Fn-36	IM-302	Agg Rok Materials (Division of Wapak Sand & Gravel Co.)
95	Franklin	Fn-6	IM-185	American Aggregates Corp.
96	Franklin	Fn-23	IM-183	American Aggregates Corp.
97	Franklin	Fn-14	IM-832	Big Walnut Sand & Gravel Co.
98	Franklin	Fn-52	IM-191	J. P. Sand & Gravel Co.
99	Franklin	Fn-54	IM-847	L. & M. Excavators, Inc.
100	Franklin	Fn-11	IM-234	Mason's Sand & Gravel Co.
101	Franklin	Fn-24	IM-266	S & S Aggregate, Inc.
102	Franklin	Fn-43	IM-188	Olen Corp.
108	Geauga	Gea-29	IM-215	Haueter Sand & Gravel, Inc.
109	Geauga	Gea-35	IM-321	Teague Gravel Co., Inc.
110	Greene	Ge-33	IM-379	American Aggregates Corp.
112	Clark, Greene	Ge-4	IM-394	Hilltop Basic Resources, Inc.
115	Greene	Ge-36	IM-305	Phillips Sand & Gravel
117	Greene	Ge-10	IM-518	Xenia Sand, Gravel, & Asphalt Co.
118	Hamilton	Hmn-37	IM-170	American Aggregates Corp.
119	Hamilton	Hmn-AAC	IM-716	American Aggregates Corp.
120	Hamilton	Hmn-54	IM-710	Ashcraft Sand & Gravel, Inc.
121	Hamilton	Hmn-44	IM-120	Barrett Paving Materials, Inc.
123	Hamilton	Hmn-50	IM-205	James Bunnell, Inc.
124	Hamilton	Hmn-59	IM-815	James Bunnell, Inc.
126	Hamilton	Hmn-3	IM-137	Dravo Basic Materials Co., Inc.
127	Hamilton	Hmn-5	IM-148	Dravo Basic Materials Co., Inc.
128	Hamilton	Hmn-11, Hmn-70	IM-133	Dravo Basic Materials Co., Inc.
130	Hamilton	Hmn-64	IM-821	Dravo Basic Materials Co., Inc.
131	Hamilton	Hmn-68	IM-747	Dravo Basic Materials Co., Inc.
132	Hamilton	Hmn-46	IM-396	Eaton Sand & Gravel Co.
134	Hamilton	Hmn-71	IM-771	Southern Ohio Sand & Gravel, Inc.
135	Hamilton	Hmn-17	IM-295	Harrison Sand & Gravel Co.
137	Hamilton	Hmn-67	IM-529	Bertha A. Leonard
139	Hamilton	Hmn-10	IM-226	Rack Sand, Inc.
141	Hamilton	Hmn-28	IM-353	The Gravel Co.
142	Hamilton	Hmn-60	IM-761	Watson Gravel, Inc.
143	Hamilton	Hmn-42	IM-823	Welch Sand & Gravel, Inc.
144	Hamilton	Hmn-48	IM-220	Welch Sand & Gravel, Inc.
147	Henry	Hy-5		Gerken Materials, Inc.
151	Hocking	Hg-262	IM-41	Hocking Valley Concrete, Inc.
152	Hocking	Hg-301	IM-458	Muskingum River Gravel Co.
153	Holmes	Hs-82	IM-707	Menuet Bros. Sand & Gravel, Inc.
154	Holmes	Hs-511	IM-1048	Feikert Sand & Gravel, Inc.
157	Huron	Hrn-1	IM-550	Rogers Group, Inc. (dba Norwalk Sand & Gravel)
159	Knox	Kx-13	IM-343	S & S Aggregate, Inc.
160	Knox	Kx-7	IM-235	Goodwin Sand & Gravel, Inc.
161	Knox	Kx-16	IM-793	Olen Corp.
162	Knox	Kx-5	IM-884	Mickley Gravel Co.
163	Knox	Kx-3	IM-300	Sant Sand & Gravel, Inc.
165	Knox	Kx-15	IM-967	Small's Sand & Gravel, Inc.
166	Lake	Lke-7	IM-162	R. W. Sidley, Inc.
167	Lawrence	Le-430	IM-844	Becky Lane Trucking, Inc.
170	Lawrence	Le-426	IM-856	Burlington Sand & Gravel Co.
174	Licking	Lg-2	IM-184	American Aggregates Corp.
176	Licking	Lg-31	IM-246	Dry Creek Gravel Co.
177	Licking	Lg-DC	IM-354	Dry Creek Gravel Co.
179	Licking	Lg-10	IM-217	Van Wey Sand & Gravel, Inc.
180	Licking	Lg-15		Walter's Gravel
181	Licking	Lg-38	IM-695	York Road Gravel Co.
182	Logan	Lgn-31	IM-454	C. E. Duff & Son, Inc.
183	Logan	Lgn-39	IM-887	C. E. Duff & Son, Inc.
189	Logan	Lgn-6	IM-459	Neer's Sand & Gravel

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SAND AND GRAVEL — Continued

<i>Map location number</i>	<i>County</i>	<i>State mine number</i>	<i>Division of Reclamation permit number</i>	<i>Name of operator</i>
191	Lorain	Ln-12	IM-731	Guy Schieve
195	Lucas	Ls-13	IM-492	Seaway Sand & Stone, Inc.
196	Mahoning	Mg-632	IM-808	Solomon's Mines, Inc.
197	Marion	Mn-16	IM-171	Scioto Sand & Gravel
198	Marion	Mn-4	IM-290	Penry Stone Co.
200	Marion	Mn-10	IM-196	Union Aggregates Co.
203	Medina	Ma-20	IM-448	Baker Sand, Inc.
206	Medina	Ma-22	IM-425, IM-650, IM-651	Seville Sand & Gravel, Inc.
208	Medina	Ma-16		Silchuk Gravel Co.
209	Meigs	Ms-205	IM-30	Dravo Basic Materials Co., Inc.
210	Meigs	Ms-295		Humphrey Farms
211	Meigs	Ms-301	IM-619	Meigs County Commissioners
212	Meigs	Ms-298	IM-32	Richards & Son, Inc.
216	Miami	Mi-6	IM-356	American Aggregates Corp.
217	Miami	Mi-501		New Carlisle Sand & Gravel Co.
219	Miami	Mi-3	IM-462, IM-658	American Aggregates Corp.
220	Miami	Mi-8	IM-355	American Aggregates Corp.
221	Miami	Mi-9	IM-408	Wise Gravel
222	Miami	Mi-4	IM-472	Fenner Sand & Gravel, Inc.
224	Montgomery	My-66	IM-677	American Aggregates Corp.
225	Montgomery	My-65	IM-594	Broadway Sand & Gravel, Inc.
229	Montgomery	My-68	IM-646	H & H Utilities Co.
232	Montgomery	My-19	IM-401, IM-916	Hilltop Basic Resources, Inc.
233	Montgomery	My-52	IM-348	Miller Bros. Gravel, Inc.
235	Montgomery	My-49	IM-370	Northmont Sand & Gravel Co.
236	Montgomery	My-55	IM-571	Jimsco, Inc.
238	Montgomery	My-61	IM-468	Tipp Stone Co., Inc.
239	Montgomery	My-41	IM-360	Weidle Sand & Gravel, Inc.
240	Morgan	Mon-588	IM-35	Chesterhill Stone Co.
241	Morgan	Mon-599		Huck Farms
242	Morrow	Mw-10	IM-258	Chesterville Sand & Gravel Co., Inc.
243	Muskingum	Mum-863	IM-264	Boyd Gravel Co.
244	Muskingum	Mum-799	IM-317	Boyd Gravel Co.
247	Muskingum	Mum-228	IM-421	Muskingum River Gravel Co.
248	Muskingum	Mum-216	IM-689	Salt Creek Materials, Inc.
251	Pickaway	Pky-1	IM-409, IM-428	American Aggregates Corp.
252	Pike	Pke-26	IM-142	Valley Materials Co.
253	Pike	Pke-23	IM-242	Chattin Concrete
254	Pike	Pke-30	IM-786	Gregory Materials Co.
255	Pike	Pke-24	IM-222	Standard Lafarge
256	Portage	Pe-50	IM-96	Beck Sand & Gravel, Inc.
257	Portage	Pe-15	IM-104	Karl Brugmann Sand & Gravel, Inc.
258	Portage	Pe-9	IM-119	Oscar Brugmann Sand & Gravel, Inc.
259	Portage	Pe-17	IM-123	Charlestown Sand & Gravel, Inc.
260	Portage	Pe-84	IM-868	Aurora Sand & Gravel, Inc.
261	Portage	Pe-45	IM-139	R. A. Cruise Sand & Gravel, Inc.
262	Portage	Pe-56	IM-127	Hilltop Aggregate, Inc.
264	Portage	Pe-10	IM-138	Hugo Sand Co.
265	Portage	Pe-63	IM-82	Jefferson Materials Co.
266	Portage	Pe-83	IM-179	Karg Sand & Gravel Co.
268	Portage	Pe-40	IM-190	Lakeside Sand & Gravel Co.
272	Portage	Pe-39	IM-174	Miller Sand & Gravel Co.
273	Portage	Pe-85	IM-700	Northern Ohio Materials, Inc.
274	Portage	Pe-60	IM-78	Schloss Materials Co.
275	Portage	Pe-18	IM-193	Sober Sand & Gravel Co.
276	Portage	Pe-36	IM-90	Solon Excavators Sand & Gravel, Inc.
277	Portage	Pe-68	IM-687, IM-1107	Standard Lafarge
278	Portage	Pe-SS1	IM-660	Standard Lafarge
280	Portage	Pe-64	IM-1017	Rainbow Sand & Gravel, Inc.
281	Portage	Pe-59	IM-210	S & S Aggregate, Inc.
282	Portage	Pe-67	IM-202	S & S Aggregate, Inc.
284	Preble	Pre-7	IM-306	Southern Ohio Aggregates
285	Preble	Pre-4	IM-477	Wysong Gravel Co.

**NUMERICAL INDEX OF OPERATORS OF MINES
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SAND AND GRAVEL — Continued

<i>Map location number</i>	<i>County</i>	<i>State mine number</i>	<i>Division of Reclamation permit number</i>	<i>Name of operator</i>
286	Preble	Pre-6	IM-478	Wysong Gravel Co.
287	Richland	Rd-4	IM-279	D. H. Bowman & Sons, Inc.
289	Richland	Rd-18	IM-670	Ganges Gravel
290	Richland	Rd-14	IM-436	John L. Garber Materials, Inc.
297	Ross	Rs-26	IM-922	Elm Spring Farm
303	Scioto	So-98	IM-474	E. E. Blair Construction Co.
304	Scioto	So-83	IM-211	Cunningham Asphalt Paving, Inc.
305	Scioto	So-78		Schilling Contractors, Inc.
306	Scioto	So-79	IM-221	Standard Lafarge
310	Shelby	Shy-12	IM-528	Fleckenstein Farm Gravel Pit
311	Shelby	Shy-17	IM-389	Miami River Stone Co.
312	Shelby	Shy-13	IM-412	Sidney Sand & Gravel Co.
314	Shelby	Shy-11	IM-743	Spring Creek Corp.
315	Shelby	Shy-18	IM-388	Spring Creek Corp.
316	Stark	Sk-N	IM-156	Northern Ohio Paving Co.
318	Stark	Sk-681	IM-164	Canton Aggregate
319	Stark	Sk-689	IM-173	Canton Aggregate
320	Stark	Sk-694	IM-858	A. J. Diana Sons, Inc.
323	Stark	Sk-688	IM-763	Heiser Sand & Gravel
325	Stark	Sk-607	IM-102	Massillon Washed Gravel Co.
326	Stark	Sk-165	IM-192, IM-781	Oster Sand & Gravel, Inc.
327	Summit	St-52	IM-900	Flesher Sand & Gravel, Inc.
328	Summit	St-39	IM-983	Lerkis Asphalt Co., Inc.
330	Summit	St-46	IM-557	H. M. Miller Construction Co.
333	Summit	St-24	IM-239	Riverside Sand & Gravel Co., Inc.
334	Summit	St-9	IM-167	Rubber City Sand & Gravel Co.
335	Summit	St-26	IM-803	Spring Valley Investments, Inc.
336	Summit	St-44	IM-178	S & S Aggregate, Inc.
340	Ashtabula, Trumbull	Tl-12	IM-131	Samco, Inc.
342	Tuscarawas	Ts-1852	IM-75	Oster Sand & Gravel, Inc.
343	Tuscarawas	Ts-1826	IM-88	Soehnlen Bros. Sand & Gravel, Inc.
344	Tuscarawas	Ts-1771	IM-77	Spring Industries, Inc.
346	Tuscarawas	Ts-111	IM-55	Stewart & Reichman, Inc.
347	Tuscarawas	Ts-69	IM-51	Stocker Sand & Gravel Co.
348	Tuscarawas	Ts-125	IM-50	Stocker Sand & Gravel Co.
349	Warren	Wan-38	IM-615	American Aggregates Corp.
352	Warren	Wan-41	IM-629	Dravo Basic Materials Co., Inc., Carl E. Oeder & Sons Sand & Gravel
356	Warren	Wan-47	IM-846	C & S Contractors, Inc.
363	Warren	Wan-10	IM-465	Watson Gravel, Inc.
364	Washington	Wn-55	IM-669	Beverly Slag Co.
365	Washington	Wn-508	IM-57	Briggs Sand & Gravel, Inc.
367	Washington	Wn-38	IM-701	Muskingum River Gravel Co.
369	Washington	Wn-510	IM-25	Trout Sand & Gravel Co.
371	Washington	Wn-44	IM-63	Coprolite Sand & Gravel Corp.
372	Wayne	We-11	IM-547	Prairie Lane Sand & Gravel Co.
373	Wayne	We-7	IM-471	Rupp Construction, Inc.
374	Wayne	We-15	IM-398	Zollinger Sand & Gravel Co.
375	Williams	Ws-6	IM-497	Stoneco, Inc.
376	Williams	Ws-9	IM-498	Stoneco, Inc.
377	Defiance, Williams	Ws-11	IM-509, IM-661	Weber Sand & Gravel, Inc.
378	Williams	Ws-14	IM-614	Dennis Winzeler
379	Wyandot	Wt-4	IM-520	Precision Aggregate, Inc.
380	Wyandot	Wt-5, Wt-15	IM-376	National Lime & Stone Co.
381	Wyandot	Wt-18	IM-551	National Lime & Stone Co.
382	Wyandot	Wt-17	IM-604	Kirby's Sand & Gravel, Inc.
384	Summit	St-53	IM-874	Portage Lakes Sand & Gravel Co.
385	Clark	Ck-501	IM-340	Demmy Construction, Inc.
386	Stark	Sk-203	IM-654	American Sand & Gravel
387	Portage	Pe-ASG	IM-212	American Sand & Gravel
388	Lawrence	Le-445	IM-928	D & D Sand Bank
389	Tuscarawas	Ts-1976	IM-941, IM-942	Benco Leasing, Inc.
390	Miami	Mi-T	IM-696	Lloyd Fry

**NUMERICAL INDEX OF OPERATORS OF MINES
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SAND AND GRAVEL – Continued

<i>Map location number</i>	<i>County</i>	<i>State mine number</i>	<i>Division of Reclamation permit number</i>	<i>Name of operator</i>
395	Scioto	So-100	IM-950	Scioto Valley Resources
396	Muskingum	Mum-261	IM-957	Lazy Acre Farms, Inc.
401	Fairfield	Fd-14	IM-933	Paul D. Beery Trucking Co.
403	Greene	Ge-40	IM-923	Donald Martin Contracting
404	Greene	Ge-42	IM-954	American Aggregates Corp.
405	Greene	Ge-32	IM-400	American Aggregates Corp.
407	Hamilton	Hmn-69	IM-969	American Aggregates Corp.
408	Knox	Kx-17	IM-968	Small's Sand & Gravel, Inc.
409	Richland	Rd-20	IM-617	Bolin & Bartley, Inc.
410	Muskingum	Mum-267	IM-914	Luburgh, Inc.
411	Logan	Lgn-40	IM-996	Cooper Sand & Gravel
412	Ashland	Ald-15	IM-944	Young's Sand & Gravel Co.
413	Ashtabula	Asa-18	IM-949	North Ridge Materials, Simak Trucking, Inc.
415	Geauga	Gea-9	IM-132	Soltis Sand & Gravel
416	Holmes	Hs-96	IM-997	Spring Run Farm & Gravel, Jeff Chaney
417	Huron	Hrn-16	IM-975	Erie Blacktop, Inc.
419	Licking	Lg-504	IM-991	Gary Roberts Excavating
420	Logan	Lgn-36	IM-1007	C. E. Duff & Son, Inc.
422	Lucas	Ls-26	IM-1016	Maumee Haulers & Excavating, Inc.
423	Marion	Mn-F	IM-990	Fleming Construction Co., Inc.
424	Monroe	Me-508	IM-1000	B & D Paving Co.
427	Summit	St-54	IM-934	R & S, Inc.
428	Tuscarawas	Ts-2001	IM-1004	Newton Asphalt
429	Warren	Wan-46	IM-679, IM-842	Paul N. Herdman
430	Warren	Wan-50	IM-1006	L & I Natural Resources, Inc.
432	Washington	Wn-54	IM-383	Atlas Towing Co.
435	Stark	Sk-173	IM-879	Allied Corp., Inc.
437	Clark	Ck-7	IM-449	City of Springfield
438	Coshocton	Cn-828	IM-1026	William Albert, Inc.
440	Gallia	Ga-626	IM-1046	Cremeans Concrete & Supply
441	Greene	Ge-38	IM-333	Watson Gravel, Inc.
442	Geauga	Gea-39	IM-1104	B-M Machine Co.
443	Geauga	Gea-40	IM-977	Solon Excavators Sand & Gravel, Inc.
444	Logan	Lgn-12	IM-1193	C. E. Duff & Son, Inc.
446	Miami	Mi-12	IM-467	Tipp Stone Co., Inc.
447	Miami	Mi-504	IM-1032	Stillwater Sand & Gravel, Inc.
448	Muskingum	Mum-262	IM-422	Muskingum River Gravel Co.
449	Muskingum	Mum-899		Boyd Gravel Co.
451	Portage	Pe-89	IM-1142	Green Oaks Potting Products
452	Ross	Rs-M	IM-114	Muskingum River Gravel Co.
453	Stark	Sk-241	IM-582	Standard Lafarge
455	Stark	Sk-243	IM-908	American Sand & Gravel
456	Wood	Wd-13	IM-998	G. M. Sader Excavating & Paving, Inc.
457	Ashtabula	Asa-13		Fred J. Dreslinski
458	Athens	As-595	IM-1083	Cochran Transportation Services, Inc.
459	Athens	As-W	IM-979	Weber Aggregates
460	Butler	Br-S	IM-1053	Southern Ohio Aggregates, Inc.
461	Clark	Ck-28	IM-1100	Barrett Paving Materials, Inc.
463	Columbiana	Ca-K	IM-1108	Kelly Coal Co.
464	Columbiana	Ca-U	IM-999	United Builders Distributing Corp.
465	Franklin	Fn-58	IM-1023	Olen Corp.
466	Gallia	Ga-O	IM-1028	Ours Sand & Gravel
467	Hamilton	Hmn-AS	IM-1106	Allgeier & Son, Inc.
468	Hamilton	Hmn-D	IM-1079	Dravo Basic Materials Co., Inc.
469	Hardin	Hdn-C	IM-1081	Crates Excavating
470	Holmes	Hs-J	IM-1043	Jones Sand & Gravel Co.
471	Lucas	Ls-AI	IM-1058	Atlantic Investment Co.
472	Lucas	Ls-G	IM-1090	H. T. Griffin Excavating, Inc.
473	Lucas	Ls-SS	IM-1069	Seaway Sand & Stone, Inc.
474	Madison	Mdn-11	IM-1063	Tuffco Sand & Gravel, Inc.
475	Mahoning	Mg-630	IM-1091	Dave Sugar, Inc.
476	Mahoning	Mg-629	IM-1008	Petersburg Stone Co.
478	Morgan	Mon-CS	IM-1105	Chesterhill Stone Co.

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<i>Map location number</i>	<i>County</i>	<i>State mine number</i>	<i>Division of Reclamation permit number</i>	<i>Name of operator</i>
479	Pickaway	Pky-7	IM-1067	Darby Gravel Co.
480	Pickaway	Pky-H	IM-1039	William A. Hoffman, Jr.
481	Pickaway	Pky-R	IM-993	Richards Farms, Inc.
482	Portage	Pe-61	IM-1064	Red Brush Peat Co.
483	Portage	Pe-92	IM-522	Don Wartko Construction, Inc.
484	Portage	Pe-J	IM-1099	Johnson Rd. Sand & Gravel
486	Portage	Pe-SE	IM-1096	Solon Excavators Sand & Gravel, Inc.
487	Portage	Pe-SS2	IM-1047	Standard Lafarge
488	Preble	Pre-9	IM-1095	Loxley Aggregates, Inc.
489	Richland	Rd-L	IM-1086	Carroll Lifer Excavating, Inc.
490	Ross	Rs-27	IM-1098	Chillicothe Sand & Gravel Co.
491	Ross	Rs-H	IM-1052	Haubeil & Sons Asphalt & Materials, Inc.
493	Shelby	Shy-S	IM-1005	Sidney Sand & Gravel Co.
494	Shelby	Shy-SC	IM-1018	Spring Creek Gravel Co., Inc.
495	Stark	Sk-M	IM-1031	Massillon Materials, Inc.
496	Summit	St-55	IM-589, IM-932	Alden Sand & Gravel Co.
497	Summit	St-56	IM-1073	M. & G. Supply Co.
498	Summit	St-L	IM-1027	Lerkis Asphalt Co., Inc. & Subsidiary
499	Trumbull	Tl-K	IM-1101	Kleese Development Associates, Inc.
500	Tuscarawas	Ts-2018	IM-1076	Zink Petroleum Corp. (dba State Rte. 416 Sand & Gravel)
501	Warren	Wan-M	IM-728, IM-1065	Morrow Gravel Co.
502	Warren	Wan-M1	IM-1051	Morrow Gravel Co.
503	Warren	Wan-M2	IM-837	Morrow Gravel Co.
504	Washington	Wn-1007	IM-1042	Mark Williams Blacktop Co., Inc.
505	Washington	Wn-Wn	IM-989	Washington County Engineer
506	Williams	Ws-T	IM-1022	Stonoco, Inc.
507	Gallia	Ga-507	IM-1074	Cedar Heights Clay Co.
508	Ashland	Ald-G	IM-1121	David B. Good
509	Ashland	Ald-16	IM-1120	Bolin & Bartley, Inc.
510	Ashtabula	Asa-N	IM-1109	Nelson Sand & Gravel, Inc.
512	Carroll	Cl-N	IM-641	National Aggregate, Inc.
513	Champaign	Cpn-J	IM-1133	J & A Excavating
516	Delaware	Del-S	IM-1118	Michael B. Sayers
517	Geauga	Gea-N	IM-1123	Newbury Sand & Gravel
518	Geauga	Gea-TK	IM-902	T & K Kuhnle Co.
519	Hamilton	Hmn-B	IM-1139	James Bunnell, Inc.
520	Hamilton	Hmn-C	IM-1132	C. Carmical Sand & Gravel
521	Hamilton	Hmn-AS1	IM-797	Allgeier & Son, Inc.
522	Hocking	Hg-328	IM-1113	Robert Tripp
523	Hocking	Hg-329	IM-1112	Kilbarger Construction, Inc.
524	Holmes	Hs-B	IM-1131	Bada, Inc.
526	Logan	Lgn-M	IM-799	Miller Bros. Construction, Inc.
528	Portage	Pe-SSC	IM-318	Sunshine Sand Co.
529	Portage	Pe-96	IM-792	Don's Dozer Service
530	Ross	Rs-R	IM-1143	Ross County Gravel Co.
531	Tuscarawas	Ts-L	IM-1125	Larkin Sewer Contractors, Inc.
532	Tuscarawas	Ts-2029	IM-1129	Burrgett Industries, Inc.
533	Washington	Wn-1008	IM-1111	Grimes Excavating
534	Washington	Wn-1009	IM-525	Mark Williams Blacktop Co., Inc.
535	Wayne	We-23	IM-1136	Buckeye Excavating
536	Champaign	Cpn-M	IM-1167	Bill McKeever Excavating
537	Clermont	Ct-11	IM-665	John E. Jones Construction Co.
538	Columbiana	Ca-W	IM-1180	Willowbrook
539	Columbiana	Cā-H	IM-634	Hutson Road Mining Co.
540	Coshocton	Cn-A	IM-971	Addy Sand & Gravel Co.
541	Fairfield	Fd-16	IM-1156	James E. Downard
542	Fulton	Ftn-S	IM-1146	Sandman Sand & Stone, Inc.
543	Fulton	Ftn-6	IM-1175	Tommie G. Walters
544	Gallia	Ga-J	IM-1145	Jaymar, Inc.
545	Geauga	Gea-H	IM-510	Haueter Sand & Gravel, Inc.
546	Greene	Ge-46	IM-1149	Don Thompson Excavating, Inc.
547	Greene	Ge-R	IM-829	Richards Service Garage
548	Greene	Ge-MJ	IM-751	M. J. Coates Construction Co.

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<i>Map location number</i>	<i>County</i>	<i>State mine number</i>	<i>Division of Reclamation permit number</i>	<i>Name of operator</i>
549	Greene	Ge-W	IM-645	Hoyle Weddle
550	Greene	Ge-G	IM-655	James D. Graham
551	Hamilton	Hmn-S	IM-746	Southern Ohio Aggregates, Inc.
552	Hamilton	Hmn-SO	IM-720	Southern Ohio Aggregates, Inc.
553	Hardin	Hdn-H	IM-864	Norman Harpster
554	Jefferson	Jfn-PE	IM-1162	Penn Eagle Coal Corp.
555	Knox	Kx-OC	IM-930	Olen Corp.
556	Lucas	Ls-MH	IM-1144	Sandman Sand & Stone, Inc.
557	Lucas	Ls-F	IM-1160	Craig Fankhauser
558	Medina	Ma-23	IM-1177	Friendsville Sand, L.P.
559	Meigs	Ms-L	IM-1159	Letart Corp.
560	Meigs	Ms-LC	IM-1174	Letart Corp.
561	Montgomery	My-CW	IM-878	Carter & Webb, Inc.
562	Montgomery	My-R	IM-539	John P. Raisch, Inc.
563	Morgan	Mon-CSC	IM-1178	Chesterhill Stone Co.
564	Pickaway	Pky-D	IM-1150	Darby Gravel Co.
565	Pickaway	Pky-W	IM-1176	Eugene T. Wilson
566	Pickaway	Pky-HE	IM-1179	R. E. Holland Excavating, Inc.
567	Portage	Pe-K	IM-1148	R. G. Karg Development Co.
568	Portage	Pe-E	IM-1154	Daniel Ebbe Trucking
569	Portage	Pe-SP	IM-499	Schloss Materials Co.
570	Portage	Pe-L	IM-154	Lucky Sand & Gravel Co.
571	Preble	Pre-AAC	IM-779	American Aggregates Corp.
572	Ross	Rs-M1	IM-1152	Mead Corp.
573	Ross	Rs-E	IM-1168	David E. Edington
574	Ross	Rs-RC	IM-925	Ross County Redi-Mix Co., Inc.
575	Ross	Rs-P	IM-122	P. & D. & Sons, Inc.
576	Scioto	So-B	IM-705	Boone Coleman
577	Shelby	Shy-SS	IM-438	Sidney Sand & Gravel Co.
578	Stark	St-MW	IM-1171	Massillon Washed Gravel Co.
579	Stark	Sk-W	IM-867	Ralph C. Wagner & Sons
580	Stark	Sk-MM	IM-752	Massillon Materials, Inc.
581	Stark	Sk-R	IM-697	Rupp Construction, Inc.
582	Stark	Sk-SI	IM-588	Spring Industries, Inc.
583	Summit	St-S	IM-722	Sam Serves
584	Trumbull	Tl-N	IM-1158	Nick's Trucking
585	Trumbull	Tl-S	IM-1173	David A. Shay
586	Tuscarawas	Ts-O	IM-1155	Oster Sand & Gravel, Inc.
587	Tuscarawas	Ts-G	IM-1151	Al Gasser Excavating, Inc.
588	Tuscarawas	Ts-SI	IM-569	Spring Industries, Inc.
589	Warren	Wan-7	IM-151	Embro, Inc.
590	Washington	Wn-M	IM-1163	M & J Sand & Gravel, Inc.
591	Wyandot	Wt-K	IM-943	Kirby Sand & Gravel, Inc.

SANDSTONE/CONGLOMERATE ▼

<i>Map location number</i>	<i>County</i>	<i>State mine number</i>	<i>Division of Reclamation permit number</i>	<i>Name of operator</i>
1	Carroll	Cl-102	IM-278	Conotton Valley Quarries Co.
3	Columbiana	Ca-855	IM-891	Beaver Creek Resources, Inc.
4	Coshocton	Cn-13	IM-397	Briar Hill Stone Co.
5	Coshocton	Cn-659	IM-232	Briar Hill Stone Co.
6	Coshocton	Cn-686	IM-504	Briar Hill Stone Co.
7	Coshocton	Cn-692	IM-294	Briar Hill Stone Co.
8	Coshocton	Cn-695	IM-402	Briar Hill Stone Co.
13	Cuyahoga	Cya-42	IM-686	Boyas Excavating, Inc.
14	Erie	Ee-21	IM-416	Cleveland Quarries Co.
17	Geauga	Gea-3	IM-89	Best Sand Corp.
18	Geauga	Gea-1	IM-163	R. W. Sidley, Inc.
19	Holmes	Hs-49	IM-418	Briar Hill Stone Co.
20	Huron	Hrn-8	IM-268	Mesenburg Bros., Inc.

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<i>Map location number</i>	<i>County</i>	<i>State mine number</i>	<i>Division of Reclamation permit number</i>	<i>Name of operator</i>
23	Knox	Kx-12	IM-445	Briar Hill Stone Co.
24	Knox	Kx-1	IM-269	Central Silica Co.
27	Lorain	Ln-3	IM-415	Cleveland Quarries Co.
30	Mahoning	Mg-62	IM-599	Gwin Contracting Co.
34	Ross	Rs-16	IM-172	Southern Silica, Inc.
36	Scioto	So-48	IM-140	Waller Bros. Stone Co.
37	Scioto	So-76	IM-141	Waller Bros. Stone Co.
38	Scioto	So-82	IM-158	Waller Bros. Stone Co.
40	Trumbull	Tl-13	IM-777	Sidwell Bros., Inc.
41	Tuscarawas	Ts-1818	IM-9	Kimble Clay & Limestone Co.
42	Tuscarawas	Ts-1660	IM-68	U.S. Silica Co.
43	Washington	Wn-45	IM-125	Alan Stone Co., Inc.
44	Coshocton	Cn-815	IM-939	Briar Hill Stone Co.
45	Pike	Pke-31	IM-835	Schrader Sand & Gravel
46	Coshocton	Cn-809	IM-909	Briar Hill Stone Co.
47	Columbiana	Ca-970	IM-1024	M & M Builders Supply Co.
48	Perry	Py-344	IM-1014	Central Silica Co.
49	Summit	St-24	IM-239	Riverside Sand & Gravel Co., Inc.
50	Geauga	Gea-N	IM-1123	Newbury Sand & Gravel
51	Belmont	Bt-1193	IM-1117	Alan Stone Co., Inc.
53	Mahoning	Mg-E	IM-1103	East Fairfield Coal Co.
54	Tuscarawas	Ts-2032	IM-1141	Slankard Dozer Service, Inc.
55	Tuscarawas	Ts-1982	IM-621	L & M Mineral Co.
56	Belmont	Bt-1190	IM-1089	Frank Widmor Coal Co.
57	Columbiana	Ca-888	IM-1181	D. & D. Mining Co.
58	Geauga	Gea-S	IM-161	R. W. Sidley, Inc.
59	Jefferson	Jfn-PE	IM-1162	Penn Eagle Coal Corp.
60	Lake	Lke-K	IM-859	Keeney Sand & Stone, Inc.
61	Perry	Py-K	IM-851	Kieco Sand & Shale
62	Tuscarawas	Ts-1517	IM-46	Belden Brick Co.
63	Tuscarawas	Ts-2024	IM-1087	Green Basin Coal, Inc.
64	Wayne	We-R	IM-690	Rash Energy, Inc.

CLAY/SHALE □

<i>Map location number</i>	<i>County</i>	<i>State mine number</i>	<i>Division of Reclamation permit number</i>	<i>Name of operator</i>
1	Ashland	Ald-1	IM-334	London Tile Co.
2	Auglaize	Ae-7		Sandkuhl Tile Co., Inc.
4	Columbiana	Ca-505	IM-13, IM-936	State Line Resources, Inc.
5	Columbiana	Ca-205	IM-74	Summitville Tiles, Inc.
6	Coshocton	Cn-787	IM-610	General Clay Products Corp.
7	Cuyahoga	Cya-19	IM-95	Hydraulic Press Brick Co.
10	Greene	Ge-8	IM-364	Southwestern Portland Cement Co.
11	Harrison	Hn-152	IM-42	Bowerston Shale Co.
12	Hocking	Hg-205	IM-21	General Clay Products Corp.
17	Holmes	Hs-56		Clark Clay Co.
18	Holmes	Hs-77	IM-545	General Clay Products Corp.
19	Holmes	Hs-67	IM-3, IM-768	Holmes Limestone Co.
21	Jackson	Jkn-1001	IM-19, IM-336	Cedar Heights Clay Co.
22	Jackson	Jkn-1007	IM-24	Cedar Heights Clay Co.
23	Jackson	Jkn-367	IM-774, D-0273, D-0286, D-0594	Waterloo Coal Co., Inc.
24	Lawrence	Le-440	IM-828, IM-902	American Olean Tile Co., Inc.
30	Lawrence	Le-308	IM-31	Kosmos Cement Co.
31	Licking	Lg-501	IM-257	Bowerston Shale Co.
34	Mahoning	Mg-608	IM-4	E.M.A.I. Corp. (dba ESSROC Materials, Inc.)
36	Marion	Mn-7	IM-309	Glen-Gery Corp.
37	Medina	Ma-6	IM-455	General Clay Products Corp.
38	Muskingum	Mum-776	IM-256	Bowerston Shale Co.
39	Muskingum	Mum-24	IM-303	Midwest Portland Cement Corp.
41	Noble	Ne-66	IM-664	Towne Square Products

**NUMERICAL INDEX OF OPERATORS OF MINES
SHOWN ON 1992 MINERAL INDUSTRIES MAP OF OHIO, BY COMMODITY — Continued**

CLAY/SHALE — Continued

<i>Map location number</i>	<i>County</i>	<i>State mine number</i>	<i>Division of Reclamation permit number</i>	<i>Name of operator</i>
42	Paulding	Pg-1	IM-513	Lafarge Corp.
46	Perry	Py-212	IM-58	Ludowici-Celadon Co.
56	Tuscarawas	Ts-1517	IM-46	Belden Brick Co.
57	Tuscarawas	Ts-1646	IM-44	Belden Brick Co.
58	Tuscarawas	Ts-1841	IM-45	Belden Brick Co.
59	Tuscarawas	Ts-1939	IM-47	Belden Brick Co.
60	Tuscarawas	Ts-1960	IM-48	Belden Brick Co.
63	Tuscarawas	Ts-1818	IM-9	Kimble Clay & Limestone Co.
64	Tuscarawas	Ts-1884	IM-6	L & M Mineral Co.
65	Tuscarawas	Ts-1914	D-0701	L & M Mineral Co.
67	Tuscarawas	Ts-1557, Ts-1558	IM-52	Stone Creek Brick Co.
69	Tuscarawas	Ts-1928	IM-98	Sugarcreek Clay & Limestone, Inc.
70	Tuscarawas	Ts-538	IM-27	Zoar Mining Co.
71	Tuscarawas	Ts-540	IM-28	Zoar Mining Co.
73	Wyandot	Wt-7	IM-407	Claycraft Co.
76	Stark	Sk-235	IM-945	Holmes Limestone Co.
77	Tuscarawas	Ts-1982	IM-621	L & M Mineral Co.
79	Columbiana	Ca-947	IM-935	Dome Minerals, Inc.
81	Athens	As-594		Athens Hocking Reclamation Center
82	Ashtabula	Asa-14	IM-563	Janson's Soil Service, Inc.
85	Tuscarawas	Ts-520	IM-214	Blue Jay Enterprises of Tuscarawas Co., Inc.
86	Geauga	Gea-9	IM-132	Soltis Sand & Gravel
87	Athens	As-595	IM-1083	Cochran Transportation Services, Inc.
88	Coshocton	Cn-828	IM-1026	William Albert, Inc.
89	Erie	Ee-32	IM-1077	Speer Brothers, Inc.
90	Greene	Ge-44		Southwestern Portland Cement Co.
91	Jackson	Jkn-CH	IM-1060	Cedar Heights Clay Co.
92	Lake	Lke-M	IM-1059	Mitchell Transport, Inc.
93	Lawrence	Le-A, Le-B	IM-1072	Addington, Inc., Belville Mining Co., Inc.
95	Lucas	Ls-E	IM-1075	Envirosafe Services of Ohio, Inc.
97	Perry	Py-S	IM-1080	Swingle Drilling, Inc.
98	Perry	Py-N	IM-1097	Nutter Bros. Coal Co., Inc.
99	Pike	Pke-26	IM-142	Valley Materials Co.
100	Portage	Pe-B	IM-1054	Beaver Excavating Co.
101	Preble	Pre-9	IM-1095	Loxley Aggregates, Inc.
102	Stark	Sk-HC	IM-1037	Hillcrest Coal, Ltd.
103	Tuscarawas	Ts-2024	IM-1087	Green Basin Coal, Inc.
104	Wood	Wd-13	IM-998	G. M. Sader Excavating & Paving, Inc.
105	Belmont	Bt-1190	IM-1089	Frank Widmor Coal Co.
106	Columbiana	Ca-970	IM-1024	M & M Builders Supply Co.
107	Mahoning	Mg-EM	IM-1056	E.M.A.I. Corp. (dba ESSROC Materials, Inc.)
108	Perry	Py-338	IM-1092	Dennis Clay Co.
109	Harrison	Hn-B	IM-1020	Bowerston Shale Co.
110	Hocking	Hg-330	IM-1013	General Clay Products Corp.
111	Holmes	Hs-96	IM-997	Spring Run Farm & Gravel
112	Muskingum	Mum-24	IM-830	Midwest Portland Cement Corp.
114	Richland	Rd-R	IM-1035	Richland Moulded Brick Co.
116	Portage	Pe-61	IM-1064	Red Brush Peat Co.
118	Mahoning	Mg-E	IM-1103	East Fairfield Coal Co.
120	Butler	Br-SK	IM-1137	S. K. Construction Co.
121	Lawrence	Le-445	IM-1140	White Eagle Mining Co., Inc.
122	Muskingum	Mum-904	IM-1127	Valley Clay Mining Co.
123	Stark	Sk-246	IM-1114	American Landfill, Inc.
124	Muskingum	Mum-903	IM-1115	Dennis Clay Co.
126	Stark	Sk-217	IM-750	Waste Management of Ohio, Inc.
127	Columbiana	Ca-989	IM-1110	Summitville Tiles, Inc.
128	Athens	As-533	IM-17	R. A. Eberts Co., Inc.
129	Carroll	Cl-B	IM-1165	Buckeye-Industrial Mining Co.
130	Columbiana	Ca-348	IM-976	D. & D. Mining Co.
131	Columbiana	Ca-DM	IM-919	David McCourt Mining Co.
132	Coshocton	Cn-T	IM-1147	TRANS-ASH
133	Jefferson	Jfn-PE	IM-1162	Penn Eagle Coal Corp.
134	Lawrence	Le-T	IM-1172	Tri-State Clay & Coal Co., Inc.

NUMERICAL INDEX OF OPERATORS OF MINES
SHOWN ON 1992 MINERAL INDUSTRIES MAP OF OHIO, BY COMMODITY — Continued

CLAY/SHALE — Continued

<i>Map location number</i>	<i>County</i>	<i>State mine number</i>	<i>Division of Reclamation permit number</i>	<i>Name of operator</i>
135	Mahoning	Mg-632	IM-808	Solomon's Mines, Inc.
136	Ottawa	Oa-BW	IM-1153	Brush Wellman, Inc.
137	Perry	Pg-344	IM-1014	Central Silica Co.
138	Perry	Py-S1	IM-1183	Swingle Drilling, Inc.
139	Pickaway	Pke-D	IM-1150	Darby Gravel Co.
140	Ross	Rs-M1	IM-1152	Mead Corp.
141	Stark	Sk-245	D-0653	Buckeye-Industrial Mining Co.
142	Tuscarawas	Ts-MMO	IM-1166	M & M Operating
143	Wayne	Hs-79	IM-656	Holmes Limestone Co.
144	Wayne	We-R	IM-690	Rash Energy, Inc.
145	Jackson	Jkn-CH1	IM-1182	Cedar Heights Clay Co.
146	Stark	Sk-247	D-0929	Buckeye-Industrial Mining Co.
147	Tuscarawas	Ts-B	IM-49	Belden Brick Co.
148	Knox	Kx-K	IM-870	Board of Knox County Commissioners
149	Perry	Py-K	IM-851	Kieco Sand & Shale
150	Ross	Rs-T	IM-1189	Tackett Builders
151	Tuscarawas	Ts-H1	IM-927	Holmes Limestone Co.
152	Washington	Wn-M	IM-1163	M & J Sand & Gravel, Inc.

SALT ■ ■

<i>Map location number</i>	<i>County</i>	<i>State mine number</i>	<i>Division of Reclamation permit number</i>	<i>Name of operator</i>
1	Cuyahoga	Cya-30		Akzo Salt, Inc.
2	Lake	Lke-6		Morton International, Inc.
3	Licking	Lg-45		R. H. Penick Co.
4	Summit	St-9127		Akzo Salt, Inc.
5	Wayne	We-9129		Morton International, Inc.

GYPSUM ◆

<i>Map location number</i>	<i>County</i>	<i>State mine number</i>	<i>Division of Reclamation permit number</i>	<i>Name of operator</i>
1	Ottawa	Oa-2	IM-344	Celotex Corp.

PEAT ◇

<i>Map location number</i>	<i>County</i>	<i>State mine number</i>	<i>Division of Reclamation permit number</i>	<i>Name of operator</i>
1	Ashland	Ald-13		Mohican Organic Products, Inc.
2	Champaign	Cpn-9		Sphagnum Moss Peat Farm
4	Williams	Ws-17		Lingvai Peat Co.
7	Portage	Pe-89	IM-1142	Green Oaks Potting Products, Inc.
9	Portage	Pe-61	IM-1064	Red Brush Peat Co.

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